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^{48}Ti (n,xnp\alpha\gamma) reaction cross sections using spallation neutrons for E_n=1-20 MeV

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^{48}Ti$(n, xnp\alpha\gamma)$ reaction cross section using spallation neutrons for E_n = 1 to 20 MeV

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γ-ray excitation functions have been measured for the interaction of fast neutrons with ^{48}Ti (neutron energy from 1 MeV to 250 MeV). The Los Alamos National Laboratory spallation neutron source, at the LANSCE/WNR facility, provided a "white" neutron beam which is produced by bombarding a natural W target with a pulsed proton beam. The prompt-reaction γ rays were measured with the large-scale Compton-suppressed Ge spectrometer, GEANIE. Neutron energies were determined by the time-of-flight technique. Excitation functions were converted to partial γ-ray cross sections, taking into account the dead-time correction, the target thickness, the detector efficiency, and neutron flux (monitored with an in-line fission chamber). The data analysis is presented here for neutron energies between 1 to 20 MeV. Partial γ-ray cross sections for transitions in ^{47,48}Ti, ^{48}Sc, and ^{45}Ca have been determined. These results are compared to Hauser-Feshbach predictions calculated using the STAPRE code, which includes compound nuclear and pre-equilibrium emission. The partial cross sections for γ rays, whose discrete γ-ray cascade path leads to the ground state in ^{48}Ti, ^{47}Ti, ^{48}Sc, and ^{45}Ca have been summed to obtain estimates of the lower limits for reaction cross sections. Partial cross sections for unobserved γ-rays are predicted from the STAPRE code. These lower limits are combined with Hauser-Feshbach calculations to deduce ^{48}Ti(n,n$'$)^{48}Ti, ^{48}Ti(n,2n)^{47}Ti, ^{48}Ti(n,p)^{48}Sc, and ^{48}Ti(n,α)^{45}Ca reaction channel cross sections.

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I. INTRODUCTION

Neutron-induced reaction cross sections on natural titanium are important for radiochemical diagnostics used to monitor charged-particle flux. ^{48}Ti is the most abundant stable isotope (73.72%) in natural titanium. Charged-particle destruction cross sections on ^{48}Ti, for example (p,n), are measured with high accuracy (see e.g., West *et al.* [1] and Gadioli *et al.* [2]), but the neutron activation cross sections are poorly measured. The amount of ^{48}V produced via (p,n) reactions on ^{48}Ti is somewhat sensitive to the neutron destruction cross sections since the neutron flux is much greater than that of the protons, and the Coulomb barrier suppresses the (p,n) reaction at low energies. Data are available for the $(n,p),(n,2n)$, and (n,α) cross sections via the activation technique, but they are mostly concentrated at E_n=14 MeV. Furthermore, the data from different measurements are often contradictory. This leads to very different evaluations of the cross sections. For example, for the (n,α) reaction at E_n=14 MeV, the ENDF/B-VI evaluation gives 18.5 mb, whereas the JENDL-3.3 evaluation gives 33 mb.

In the present work, partial ^{48}Ti$(n,n'\gamma)^{48}$Ti, ^{48}Ti$(n,2n\gamma)^{47}$Ti, ^{48}Ti$(n,p\gamma)^{48}$Sc, and ^{48}Ti$(n,\alpha\gamma)^{45}$Ca cross sections have been measured using the spallation neutron beam and the Compton suppressed germanium detector array (GEANIE) at the Los Alamos Neutron Science Center (LANSCE). Prompt γ rays were produced from neutron-induced reactions on an enriched ^{48}Ti target. The majority of the known γ-ray transitions in low-lying discrete levels of the residual nucleus have been observed in the (n,n') and $(n,2n)$ channels, and their γ-ray yields have been determined. A few of the prominent γ rays from transitions in low-lying excited levels for charged particles emission channels were also measured. The individual partial cross sections have been combined to produce an experimental lower limit on the ^{48}Ti(n,n'γ)^{48}Ti, ^{48}Ti(n,2nγ)^{47}Ti, ^{48}Ti(n,pγ)^{48}Sc and ^{48}Ti(n,$\alpha\gamma$)^{45}Ca cross sections. The statistical Hauser-Feshbach calculation code STAPRE predicts the partial cross sections for the unobserved contributions from the reaction. Measured lower limits were combined with Hauser-Feshbach calculations to produce a model-dependent estimate of the reaction channel cross sections.

The main results reported in this paper are: (i) the partial transition cross sections (plotted in Figs. 28–114, and tabulated for a subset of reliable γ rays in Tables XII–XCVIII), (ii) the lower-limit estimates for the $(n,n'\gamma)$, $(n,2n\gamma)$, $(n,p\gamma)$, and $(n,\alpha\gamma)$ channel cross sections (plotted in Figs. 11, 12, 13, and 14, respectively), and (iii) reaction channel cross sections deduced from a combination of Hauser-Feshbach calculations (plotted in Figs. 15, 16, 17 and 18). The salient aspects of the analysis leading to these results are presented in the main body of this paper, while the details and the extensive tables and figures are relegated to the appendices. A summary of the experimental setup is given in section II. In section III, the procedure involved in reducing the data and extracting transition cross sections is described. In section IV, a brief description of the theoretical calculation is presented. Selective criteria based on the

threshold analysis and $\gamma\gamma$ coincidence spectra are applied to obtain a subset of "trusted" γ rays, for which reliable partial cross sections can be extracted. The results of this work are presented in section V, and a discussion of the limitations of the present data and analysis of the $n+^{48}$Ti reaction is given in the conclusion.

II. EXPERIMENTAL SETUP

The experimental data were obtained at the Los Alamos Neutron Science Center (LANSCE) Weapons Neutron Research (WNR) facility. At the WNR facility, spallation neutrons are produced by bombarding a natural W target with an 800-MeV pulsed proton beam from the LANSCE linac. The pulsed proton beam consists of micropulses 1.8 μs apart, bunched into macropulses 625 μs in duration. Spallation neutrons with energies ranging from a few keV to nearly 800 MeV are produced. The production of a "white" neutron spectrum decreases nearly exponentially with increasing neutron energy. Beam-hardening material (1.5 cm of lead) was placed in the neutron flight path. The neutrons were collimated to a circular beam spot about 1.5 cm in diameter at the scattering-sample position. The scattering sample consisted of 3.3 grams of TiO_2 in the form of disks 2.4 cm diameter, enriched to 99.81% in ^{48}Ti. The γ rays were detected with the GEANIE (GErmanium Array for Neutron Induced Excitations) spectrometer, located about 20 m from the neutron source on the 60° right flight path. For this experiment, the GEANIE spectrometer consisted of 11 planar and 15 25% High-purity Ge (HPGe) coaxial detectors. All of the planars and 9 of the coaxial detectors were equipped with Compton suppression shields. The detectors were situated at a distance of ≈14 cm from the focal point where the scattering sample is located. The planar detectors were used to measure γ rays with energies less than 1 MeV and the coaxial detectors measured γ rays with energies up to 4 MeV. The planar detectors were arranged in rings at angles of 27.4° (four detectors), 58.4° (two detectors), 128.0° (one detector), and 142.7° (four detectors) with respect to the neutron beam direction. The coaxial detectors were arranged in rings at angles of 56.6° (two detectors), 77.7° (two detectors), 100.5° (four detectors), and 129.5° (one detector). The six remaining coaxial detectors were unsuppressed and their events were only analyzed in $\gamma\gamma$ coincidence mode. The data from the suppressed detectors were collected in singles-and-higher-fold mode, resulting in a total array rate of 2-3 kHz. For each unsuppressed γ-ray event, a master gate window of 20 μs was opened during which all unsuppressed pulses from the Ge detectors were processed. The data stream consisted of a bit determining whether the event occurred in or out of the macropulse, the time relative to the start of the macropulse (recorded in 100 ns intervals), energy E_γ, and (if in beam) time t_γ relative to the proton micropulse for each detector which recorded an event. The efficiency of the array has been calibrated through a series of source measurements, supplemented by detailed modeling [3] using the transport code MCNP [4].

A fission chamber consisted of ^{235,238}U foils [5] was located 2 m upstream from the GEANIE spectrometer. The neutron flux was determined using these fission chambers. Neutron energies were determined by the time-of-flight (TOF) technique, using the detection time of the "flash" of γ rays caused by the spallation reaction with respect to the beam rf signal as a reference marker. The detection time of γ rays produced by neutrons interacting with the sample was used to calculate the TOF of the neutrons relative to the γ-flash detection time. Similarly, signals from the fission chamber were used to provide a flight time relative to the γ-flash detection time (also observed in the fission chamber). More extensive discussions of the LANSCE/WNR facility and the GEANIE spectrometer are given in references [6] and [7], and a summary of the experimental conditions is supplied in appendix A.

III. DATA ANALYSIS

The data were collected for about 6 days and a total of about 4.6×10^8 single- and higher-fold events were recorded. There were also separate experimental runs with a target "sandwiched" between a 5-mil natural iron foil to validate experimental technique and system consistency. During data playback, events were separated into beam-on and beam-off matrices. Two-dimensional matrices of E_γ vs. TOF and $\gamma\gamma$ coincidences were generated. In order to improve statistics, data from detectors of a particular type (planar or coaxial) were summed. The energy calibration was performed using the energies of well-known lines in ^{48}Ti and other isotopes in the beam-on data for each set of detectors (see Appendix C). Neutron energies were determined by using the technique discussed in Section II; the TOF spectrum for planar data is shown in Fig. 1. The distance traveled by both neutrons and γ rays from the spallation source to the focal point of the GEANIE spectrometer is d = 20.34 m. We calculate the time-of-flight (TOF) relative to the γ flash classically. The γ-ray TOF is simply d/c, where $c \approx 0.300$ m/ns is the speed of light in vacuum. Similarly, the TOF of a neutron with kinetic energy E_n is d/v where, classically,

$$E_n = \frac{1}{2}mv^2, \tag{1}$$

and m is the neutron rest mass. The TOF of the neutron relative to the γ ray is given by:

$$\delta t = \frac{d}{v} - \frac{d}{c} = \frac{d}{c}\left(\sqrt{\frac{mc^2}{2E_n}} - 1\right). \tag{2}$$

Using the neutron rest energy mc^2=939.56 MeV, we obtain, for example, the TOFs:

$$E_n = 1.0\ MeV \Rightarrow \delta t = 1401.72\ ns \tag{3}$$

$$E_n = 20\ MeV \Rightarrow \delta t = 260.80\ ns \tag{4}$$

In the TOF spectrum, the γ flash can be seen at channel position $x_{flash} = 202$ (each channel corresponds to 0.5 ns). The TOFs calculated in equations 3 and 4 correspond to channel positions:

$$x_{min} = (202 + 1401.72/0.5) = 3005 \tag{5}$$

$$x_{max} = (202 + 260.80/0.5) = 724, \tag{6}$$

where the x-channel number is rounded to the nearest integer. These classical values are in good agreement with the relativistic values $x_{min} = 3007$ and $x_{max} = 737$. The relativistic values were used to set the time condition on the TOF spectra to obtain the corresponding pulse-height spectra [8]. Fig. 2 shows the spectrum obtained with the coaxial HPGe detectors after selecting time gates corresponding to E_n = 1-20 MeV neutrons. There is a large background present from interactions in the Ge crystals that obscure γ rays in these regions.

The excitation functions were obtained by applying TOF gates 15 ns wide on the γ-ray events in the interval to E_n = 1 to 20 MeV. For each TOF bin, a 1D γ-ray pulse-height spectrum was generated and fitted with the computer code XGAM [9] with peak shape parameters and background levels determined from a global fit to the spectrum. These parameters are listed in appendix B. XGAM extracts γ-ray peak areas from a spectrum. Fitted peaks in the spectrum were identified by comparison with accepted γ-ray energies, tabulated in the NUDAT database [10]. Partial γ-ray cross sections for transitions were obtained using the following formula

$$\sigma_\gamma(E_n) = (1 + \alpha_\gamma) * \frac{\epsilon_{fc}}{\epsilon_{Ge}} * \frac{LT_{fc}}{LT_{Ge}} * \frac{1}{a_s}\frac{A_\gamma}{N_n}, \tag{7}$$

where α_γ is the internal conversion coefficient, ϵ_{Ge} and ϵ_{fc} are the detection efficiency of the Germanium detectors and fission chamber (respectively), LT_{Ge} and LT_{fc} are the live times of the Germanium detectors and fission chamber, a_s is the areal density of the ^{48}Ti sample, A_γ the γ - ray peak area, and N_n the number of neutrons counted in the fission chamber.

The internal conversion coefficients are taken from the NUDAT [10] database. The neutron flux used in Eq. (7) can be determined from either the ^{235}U or the ^{238}U foil in the fission chamber. Throughout this paper, the ^{238}U foil has been used consistently to extract partial γ-ray cross sections, in order to avoid the wrap-around problem arising in the incident neutron beam structure (since the flight path is long enough that low energy neutrons arrive at the target location at the same time as high-energy neutrons from a successive pulse). The pulse height and time-of-flight data from the ^{238}U fission chamber are shown in Fig. 3. In Fig. 3(a), the pulse height spectrum is shown as determined from the beam-on data. The vertical line indicates the lower limit of the gate taken on the pulse height in order to separate "α" events from fission events. In this case, "α" events include those resulting from the natural α decay of ^{238}U and those originating from neutron-induced reactions on the backing material. Fig. 3(b) shows the raw TOF spectrum obtained without any gating conditions placed on the pulse height spectrum. The TOF spectrum in Fig. 3(c) is fission gated, and is converted to a neutron intensity spectrum by using the known ^{238}U(n,f) cross sections [11], and taking the efficiency for the fission detector to be ϵ=0.97 [3]. The TOF bins correspond to the same neutron energies as for the γ-ray events, with the photofission events used as the reference time. The fission-chamber live time is determined by taking the ratio of beam-on ADC events to the total number as given by a scalar-module count, gated by the beam envelope.

The number of neutrons in a time bin from T^L to T^H is given by [8]

$$N_n([T^L, T^H]) = \sum_{\tau=T^L}^{T^H} N_n(\tau) \int_0^\infty \frac{1}{\sqrt{2\pi}\sigma_\tau} \times exp(-\frac{(\tau - \tau')^2}{2\sigma_\tau^2}) d\tau', \tag{8}$$

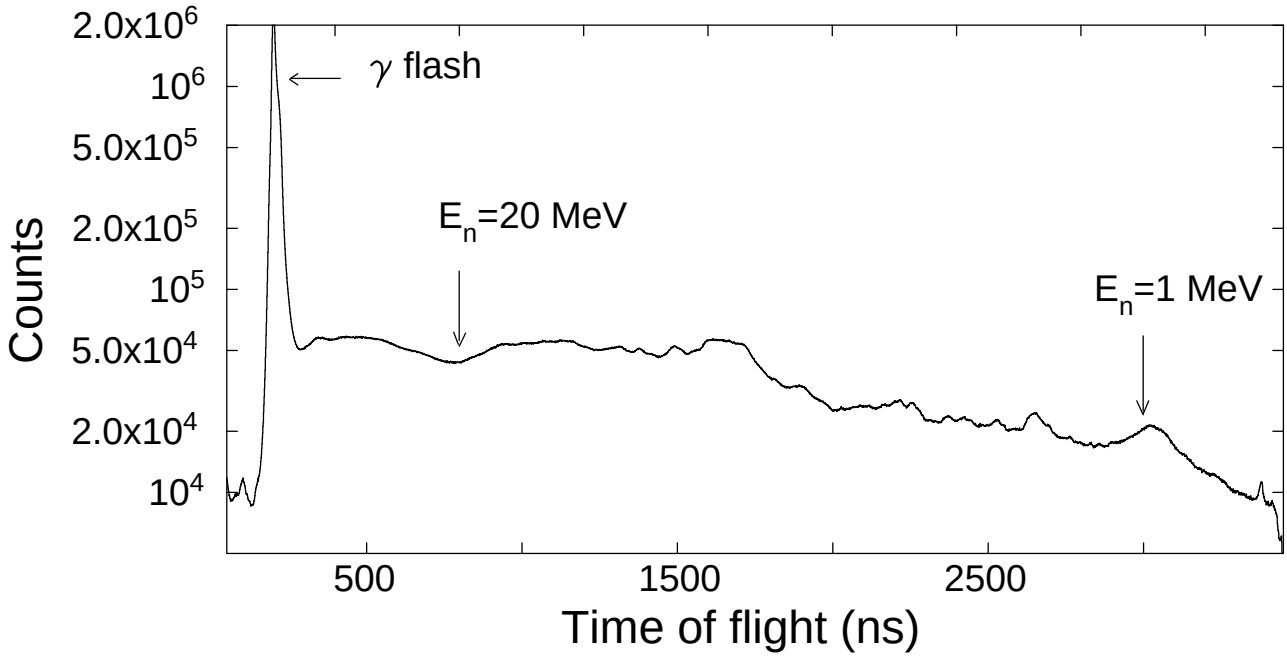

FIG. 1: Time of flight spectrum.

where τ is the time of flight, $N_n(\tau)$ is a flux normalization parameter which is calculated from the neutron count in each TOF channel, and σ_τ is the detection timing uncertainty, deduced in our experiment to be 15 ns FWHM ($\Rightarrow$ σ_τ = 6.37 ns) [12]. The effect due to the finite time resolution is taken into account and assumed to be Gaussian distributed. Since the neutron spectrum is not constant, the mean energy $\bar{E}_n$ of the neutrons in the bin from time T^L to T^H is determined from

$$\bar{E}_n = \frac{\sum_{\tau=T^L}^{T^H} E_n(\tau) N_n(\tau) \int_0^\infty \frac{1}{\sqrt{2\pi}\sigma_\tau} exp(-\frac{(\tau-\tau')^2}{2\sigma_\tau^2}) d\tau'}{\sum_{\tau=T^L}^{T^H} N_n(\tau) \int_0^\infty \frac{1}{\sqrt{2\pi}\sigma_\tau} exp(-\frac{(\tau-\tau')^2}{2\sigma_\tau^2}) d\tau'}, \tag{9}$$

and the variance

$$\sigma_{E_n}^2 = \frac{\sum_{\tau=T^L}^{T^H} [E_n(\tau) - \bar{E}_n]^2 N_n(\tau) \int_0^\infty \frac{1}{\sqrt{2\pi}\sigma_\tau} exp(-\frac{(\tau-\tau')^2}{2\sigma_\tau^2}) d\tau'}{\sum_{\tau=T^L}^{T^H} N_n(\tau) \int_0^\infty \frac{1}{\sqrt{2\pi}\sigma_\tau} exp(-\frac{(\tau-\tau')^2}{2\sigma_\tau^2}) d\tau'}. \tag{10}$$

It should be noted that in the plots of excitation functions, the horizontal E_n error bars are derived from the variance and thus represent the width of the neutron energy distribution, rather than the uncertainty on the mean neutron energy for the bin.

The γ-ray absolute efficiency curves for planar and coaxial detectors were calculated for GEANIE data using a Monte-Carlo simulation of the array [3, 4]. Calculated absolute efficiency curves for planar and coaxial detector sets are shown in Figs. 4 and 5, respectively. The calculated efficiency curves are corrected for beam-profile and target-geometry effects. The Monte-Carlo simulation for coaxial detectors were performed for γ ray energy between 300 keV and 1800 keV. The efficiency curve for coaxial detectors was extrapolated out to high energies and verified with γ ray reference sources.

The deadtime fractions (1-livetime) in Eq. (7) were calculated from the ratio of measured ADC and scaler counts. Total deadtimes of 62.0% and 58.0% were determined for the planar and coaxial sums, respectively, and deadtimes of 52.0% and 50.9% were obtained for the ^{235}U and ^{238}U fission foils. The systematic extraction of angular distributions for γ rays in GEANIE data is an exceedingly difficult task. The 20 detectors in the array occupy only 5 distinct angles, and the relatively short distance between sample and detector face degrades the angular resolution at those few angles. We examined the angular distribution for E_γ=983.5 keV (the transition between 2^+ to 0^+ states in ^{48}Ti) and there was no significant angular distribution effect in the corresponding (n, n') cross section.

As a validation of the experiment and the analysis technique, the partial cross section of the $2_1^+ \rightarrow 0_1^+$ transition in ^{56}Fe has been extracted from a series of runs with the ^{48}Ti sample sandwiched between 5-mil ^{nat}Fe foils. This partial cross section has been extracted from both planar and coaxial data, and is plotted in Figs. 23 and 24, respectively. These data are compared to the cross section of 705 $\pm$ 56 mb at E_n = 14.5 MeV, evaluated by Nelson *et al.* [13].

Multiplicity two-and-higher coincidences from both the planar and coaxial detectors were sorted into a $4k\times4k$ $\gamma\gamma$ matrix. Prompt coincidence events were considerably fewer compared to single-fold data, and to maximize statistics the data from both planar and coaxial detectors were combined after converting them to the same energy range. A TOF gate corresponding to neutron energies between 1 to 12 MeV was imposed to minimize background from other reactions. To build the coincidence matrix, $\gamma\gamma$ resolving-time windows of 30 ns, 35 ns, and 40 ns were set for planar-planar, planar-coaxial, and coaxial-coaxial detector coincidences, respectively. Coincidences between γ rays provide an additional tag to eliminate extraneous information in the spectra. The coincidence matrix was analyzed to confirm γ-ray assignments and to build a partial level scheme for ^{48}Ti. A generalized background subtraction was applied to the $\gamma\gamma$ matrix that was processed using the code ESCL8R [14]. Fig. 6 displays portions of selected coincidence spectra, showing some of the stronger transitions in the ^{48}Ti(n,n$'\gamma\gamma$)^{48}Ti reaction. The resulting partial level scheme is shown in Fig. 27. In total, over 60 γ rays were identified with existing transitions in the NUDAT [10] database, and placed in the level scheme.

IV. HAUSER-FESHBACH STATISTICAL MODEL

A traditional theoretical approach to compound nuclear reactions is the statistical or Hauser-Feshbach model. This model is valid only for high level densities in the compound nucleus, allowing one to use energy averaged transmission coefficients T, which describe absorption via an imaginary part in the (optical) nucleon-nucleus potential. Details are given by Hauser and Feshbach [15]. For the reaction I (in state μ) $+j\rightarrow k+$L (in state ν), with I$^\mu + j$ interacting with center-of-mass energy E$_j^\mu$ (in MeV), the average cross section is given by

$$\sigma_{jk}^{\mu\nu}(E_j^\mu) = \frac{\pi\lambda\!\!\!^{-2}_j}{g_I^\mu g_j}\sum_{J,\pi} g_J \frac{T_j^\mu(J^\pi)T_k^\nu(J^\pi)}{T_{tot}(J^\pi)} W(J^\pi), \tag{11}$$

where the summation extends over all compound nuclear spins and parities J^π, μ and ν label the states in the target and product (= 0 for the ground state, 1 for the 1st excited state, etc.). The cross section has units of area, described by $\pi\lambda\!\!\!^{-2}_j = 0.6566(\hat{A}_j E_j^\mu)^{-1}$ barns, with $\hat{A}_j = (A_I A_j)/(A_I + A_j)$ the reduced mass in atomic mass units and E_j^μ the center-of-mass energy in units of MeV. $\lambda\!\!\!^{-}_j$ is the wavelength related to the wave number k_j in the target plus incident particle channel by $\lambda\!\!\!^{-}_j = 1/k_j$. The statistical weights are given by $g_y^x = (2J_y^x + 1)$. Items without superscripts refer to the compound nucleus. The coefficients W(J^π) are the width fluctuation corrections.

A Transmission Coefficients

The transmission coefficients in the numerator of Eq. (11) are given by $T_j^\mu(J^\pi)$ which equals the total transmission function for forming the state J$^\pi$ in the compound nucleus $I^\mu + j$ at energy E_j^μ. Likewise, $T_k^\nu(J^\pi)$ is the same as $T_j^\mu(J^\pi)$ but for the pair $L^\nu + k$ at energy E_k^ν. Implicit in these definitions is a sum over all possible partial waves and

channel spins, i.e.,

$$T_j^\mu(J^\pi) = \sum_{l,s} T_j^\mu(J^\pi, l, s),$$

where l is any partial wave number (orbital angular momentum) that can couple the state μ to the compound nuclear state having spin and parity J^π subject to quantum mechanical selection rules, and s is the vector sum of the spins J_I^μ and J_j. Hence s takes on all integer (or half-integer) numbers from $|J_I^\mu - J_j|$ to $J_I^\mu + J_j$.

T_{tot} represents the sum of transmission coefficients over all possible decay channels (i.e., for all particles and photons). The cross section for the formation of species L, regardless of its state ν, is obtained by summing Eq. (11) over all bound states ν of L for which the reaction is energetically allowed.

When evaluating these sums, if the energies of interest exceed the highest discrete excited state for which energy, spin, and parity are explicitly known, a nuclear level density formula must be employed. Specifically, the definitions for $T_j(J^\pi)$, $T_k(J^\pi)$, and $T_{tot}(J^\pi)$ must be modified, for example:

$$T_k(J^\pi) = \sum_{\nu=0}^{\omega} T_k^\nu(J^\pi) + \int_{\xi_L^\omega}^{\xi_L^{max}} \int_{J^\nu \pi^\nu} T_k^\nu(\xi_L^\nu, J^\pi)\rho(\xi_L^\nu, J^\nu, \pi^\nu) d\xi_L^\nu d\pi^\nu dJ^\nu,$$

where for the nucleus L, ξ_L^ω is the energy of the highest excited state, ω, of known energy, spin, and parity. $\xi_L^{max} = E_k^0 = E_j^0 + Q_{jk}$ is the maximum excitation energy available, while $\rho(\xi_L^\nu, J^\nu, \pi^\nu)$ is the density of states per unit energy and for spin and parity J^ν and π^ν at the excitation energy ξ_L^ν. The above integral approximates a summation and is subject to the same quantum mechanical restrictions implied in the definition of the transmission function.

1 The Optical Model

For the calculation of the particle (neutron and proton) transmission coefficients $T_k^\nu(\xi_L^\nu, J^\pi)$, we used the optical model developed by Koning and Delaroche [16]. Although the Koning-Delaroche parameters are tuned to fit data for many different species (see their Tables 6 and 7), we decided to use the global nucleon-nucleon Optical Model Potential (OMP), as it gives a very satisfactory fit to measured total cross section data for neutrons and protons in the range of interest to us (see [16]). We adopted the potential depth parameters and Fermi energies for the neutron and proton global OMP defined in their Section 5.2, Tables 14 and 15. The particle transmission coefficients were generated by the optical model code ECIS-95 [17]. Although designed for coupled-channel calculations, we used the code in a spherical optical model mode.

2 Level Densities

For this project, we have adopted a modified version of the level density formulation of [18]. The state density is described by two different functions above and below a matching energy E_x, which match magnitude and slope at E_x, as in [19].

Above the matching energy, we adopt the back-shifted Fermi gas model

$$\rho(E) = \frac{exp(2\sqrt{aU})}{12\sqrt{2}a^{1/4}U^{5/4}\sigma}, \tag{12}$$

where $U = E - \Delta$, Δ is the so called "pairing energy" or backshift parameter, and σ is the spin cut-off parameter. Rather than using a constant pairing energy or one with a fixed dependence on mass number, we determine the

pairing energy from the nuclear binding energies, as in [18]:

$$\begin{aligned}\Delta(Z,N) &= \Delta_p(Z,N) + \Delta_n(Z,N) \\ \Delta_p(Z,N) &= E^G(Z,N) \\ &\quad - \frac{1}{2}E^G(Z-1,N) \\ &\quad - \frac{1}{2}E^G(Z+1,N) \\ \Delta_n(Z,N) &= E^G(Z,N) \\ &\quad - \frac{1}{2}E^G(Z,N-1) \\ &\quad - \frac{1}{2}E^G(Z,N+1)\end{aligned} \tag{13}$$

For odd N or Z, we eliminate the pairing energies Δ_n or Δ_p, respectively. The level density parameter a used is that of [18], where

$$\begin{aligned}a(U,Z,N) &= \tilde{a}(A)\left(1+\delta W(Z,N)\frac{f(U)}{U}\right) \\ f(U) &= 1-\exp(-\gamma U) \\ \tilde{a} &= 0.1337A - 0.06571A^{2/3},\end{aligned} \tag{14}$$

with $\gamma = 0.04884$, and the $\delta W(Z,N)$ parameters are shell corrections given in Ref. [20]. Finally, the spin-cutoff parameter σ in Eq. (12) is defined by

$$\sigma^2 = \lambda\sqrt{aU}A^{2/3} \tag{15}$$

where $\lambda = 0.146$. This formulation of the state density has been shown to replicate known experimental resonance spacings at the neutron binding energy reasonably well.

Equation 12 diverges as E approaches Δ. Thus, below the matching energy roughly given by $E_x = 2.5 + 150/A$ we adopt a constant temperature formula for the state density

$$\rho(E) = \frac{1}{T}\exp\left[\frac{E-E_0}{T}\right]\frac{1}{\sqrt{2\pi}\sigma}, \tag{16}$$

where σ is defined as before, except that it is held constant below E_x. The parameters E_0 and T are uniquely determined by the condition that the two state density formulae match magnitude and slope at E_x. Generally, this constant temperature formulation provides a reasonable fit to low lying levels.

The level density is related to the state density by

$$\begin{aligned}\rho(E,J) &= \rho(E)\,f(E,J) \\ f(E,J) &= \frac{2J+1}{2\sigma^2}exp\left(\frac{-(J+1/2)^2}{2\sigma^2}\right),\end{aligned} \tag{17}$$

where J is the spin of the compound nucleus.

3 Photon Transmission Coefficients

For the calculation of the γ-ray transmission coefficients, we use a simple model where the transmission coefficient depends only on the multi-pole type (XL = E1, M1, E2, etc ...) and the transition energy ϵ. They are related to the gamma ray strength function $f^{\gamma}_{XL}(\epsilon)$ by

$$T^{\gamma}_{XL}(\epsilon) = 2\pi\epsilon^{2L+1}f^{\gamma}_{XL}(\epsilon). \tag{18}$$

The energy dependence of the strength function was determined using the GDR model with Lorentz line shapes. The transmission coefficients were then normalized by fitting the average total s-wave radiation width at the neutron binding energy [21].

Since the total s-wave radiation width at the neutron binding energy is generally measured only for stable isotopes plus a neutron, we developed a systematic approach for estimating this value for the many unstable nuclei in our region of interest. The systematic values are determined by a least squares linear fit to experimental data, with separate systematics developed for even-Z even-N, even-Z odd-N, odd-Z even N, and odd-Z odd-N compound nuclei. Since in the case of odd-Z even-N nuclei, no experimental s-wave data was available in our region of interest, we adopted the odd-Z odd-N systematic for all odd-Z nuclei. The systematics for the total s-wave radiation width used were

$$\begin{aligned} \texttt{Even Z, Even N:}\, 64.4N - 748 \\ \texttt{Even Z, Odd N:}\, 109N - 1410 \\ \texttt{Odd Z:}\, 165N - 3290 \end{aligned} \tag{19}$$

We used the experimental values for all compound nuclei that had measured average s-wave radiation widths.

4 Nuclear Structure Data

We adopt for nuclear masses the experimental mass excess values of [20]. Spin and parity assignments are from the Evaluated Nuclear Structure Data File [22]. The nuclear structure data needed to model the gamma-ray cascade in this study was adopted from the file BUDAPEST.DAT [23], with an additional evaluation performed by R. Bauer [24].

B Width Fluctuation Corrections

In addition to the ingredients required for Eq. (11), width fluctuation corrections (WFC) are employed as well. They define the correlation factors with which all partial channels of incoming particle j and outgoing particle k, passing through excited state (E, J, π), have to be multiplied. The major effect is to enhance the elastic channel and accordingly decrease the other open channels. They are most often observed at or near channel opening energies when e.g., a (p,γ) and a (p,n) channel compete, and the weaker (p,γ) channel is enhanced. Above a few MeV of excitation energy, when many competing channels are open, WFC's can be neglected.

The exact expression for the WFC, obtained with the Gaussian orthogonal ensemble (GOE) approach, requires the evaluation of a triple integral and to date has been considered much too costly to apply in nuclear cross section calculations. Several approximations have been developed; the most popular ones are the Moldauer model [25], and the HRTW model [26]. We adopt the Moldauer model of the WFC. For a detailed description of the full (GOE) treatment and a comparison with the Moldauer and HRTW approximation models mantioned above, see [27].

C Pre-Compound Processes

For excitation energies starting around 10 MeV, pre-compound processes become important in (n,x) reactions. The pre-compound cross section is subtracted from the total cross section of the first compound nucleus, and is usually unimportant for subsequent compound nuclei. Here we describe equilibration of the compound nuclear system in terms of a simple exciton model. In the pre-equilibrium stage of the reaction, particle or photon emission is assumed to be the only decay mode. For the equilibration portion of the first chance particle or photon emission as well as for first chance fission, the Hauser Feshbach formula Eq. (11) is applied. All subsequent (higher chance) processes are treated as sequential evaporation steps.

We adopt a simple exciton model with initial 2-particle 1-hole configuration. Average rates for internal transitions are related by the formulas of Williams [28], corrected for the Pauli principle by Cline [29], to the absolute square of the average effective matrix element $|M|$ of the residual interactions as per Eq. (7) of [21]. The dependence of $|M|^2$ on mass number and excitation energy is

$$|M|^2 = \langle FM \rangle A^{-3} E^{-1}. \tag{20}$$

A value of $\langle FM \rangle = 100$ provides reasonable agreement with the experimental cross section data in this region. This value for $\langle FM \rangle$ was applied in calculating the pre-equilibrium contribution to all cross sections in this study.

D The STAPRE Hauser-Feshbach Reaction Code

We adopt the statistical model code STAPRE (STAatistical-PREequilibrium) to model our cross sections [21]. It embodies all of the physical models discussed above. The version of the code we use is STAPRE-H95 [30]. We have made several modifications, primarily to the level density routines.

V. RESULTS

The main results in this paper are: (i) the partial transition cross sections plotted in Figs. 28–114, and tabulated for a subset of reliable γ rays in Tables XII–XCVIII, (ii) the lower-limit estimates for the $(n, n'\gamma)$, $(n, 2n\gamma)$, $(n, p\gamma)$, and $(n, \alpha\gamma)$ channel cross sections plotted in Figs. 11, 12, 13, and 14, respectively and (iii) channel cross sections that are inferred from combinations of the Hauser-Feshbach calculations plotted in Figs. 15, 16, 17 and 18.

A STAPRE calculations

Partial γ-ray cross sections for ^{48}Ti+n reaction have been calculated using the Hauser-Feshbach code STAPRE for neutron energies up to 20 MeV. More detailed descriptions of the inputs are in Section IV. The calculation includes the preequilibrium processes for the first emitted particle and produces activation cross sections, population cross sections for isomeric states and production cross sections for γ rays from low-lying discrete excited states. The discrete level schemes for reaction channels were taken from ENSDF [22]. For the present calculation, discrete low-lying excited levels up to an excitation energy of 4.074 MeV were included for the inelastic channel, and up to level energy 2.682 MeV for the (n,2n) channel. Levels up to $E_x = 2.729$ MeV are included for the (n,p) channel, and up to $E_x = 1.554$ MeV for the (n,α) channel. Partial level schemes used for STAPRE calculations are shown in Figs. 7, 8, 9,and 10.

B Lower-limit estimates

A lower limit on the ^{48}Ti(n,n'γ)^{48}Ti cross section is obtained from the data measured with the GEANIE array by summing the partial γ-ray cross sections for transitions directly populating the ground state of ^{48}Ti. Explicitly, the lower-limit estimated cross section for the inelastic channel is (see Fig. 27)

$$\sigma(n, n'\gamma) \equiv \sigma_\gamma(983.5) + \sigma_\gamma(2421.0) + \sigma_\gamma(3371.2) + \sigma_\gamma(3699.1) + \sigma_\gamma(3738.0), \tag{21}$$

where individual partial γ-ray cross sections are labeled by their energies and listed in appendix G. The sum in Eq.(21) is plotted as a function of incident neutron energy in Fig. 11, and compared with STAPRE predictions. The partial sums from both experiment and theory are in excellent agreement from 1 MeV to 20 MeV.

Similarly, a lower-limit on the ^{48}Ti(n,2nγ)^{47}Ti cross section is given by the sum of measured partial γ ray cross sections,

$$\sigma(n, 2n\gamma) \equiv \sigma_\gamma(159.4) + \sigma_\gamma(1251.5) + \sigma_\gamma(1549.9) + \sigma_\gamma(1739.9) + \sigma_\gamma(1825.1) + \sigma_\gamma(2259.3) + \sigma_\gamma(2297.0). \tag{22}$$

The sum is plotted in Fig. 12. From threshold to $\approx$15 MeV, the experimental sum is in very good agreement with the calculated partial sum. Above $\approx$15 MeV the calculated sum overpredicts the experimental sum.

For charged particle emission channels, lower-limits on the ^{48}Ti(n,pγ)^{48}Sc and ^{48}Ti(n,$\alpha\gamma$)^{45}Ca were based on the first excited state to ground state transition measured with GEANIE. The lower-limit plots for the ^{48}Ti(n,pγ) and ^{48}Ti(n,$\alpha\gamma$) reactions are shown in Figs. 13 and 14. For the (n,pγ) channel, the experimental partial cross section agrees very well with the calculated partial cross section from threshold to $\approx$13 MeV. Above this point the calculated partial cross section overpredicts the measured partial cross section. On other hand, the calculated partial cross section underpredicts the measured partial cross section for the (n,$\alpha\gamma$) channel below 15 MeV.

C Channel cross section combined with Hauser-Feshbach model calculation

The individual partial cross sections have been combined to produce a experimental lower limit on the ^{48}Ti(n,n$'$)^{48}Ti, ^{48}Ti(n,2n)^{47}Ti, ^{48}Ti(n,p)^{48}Sc and ^{48}Ti(n,α)^{48}Ti cross sections. These lower limits were combined with Hauser-Feshbach calculations to produce a model-dependent estimate of the cross sections using the following equation:

$$\sigma_{reaction}^{deduced} = \sum_i \sigma_{\gamma_i}^{measured} \times \frac{\sigma_{reaction}^{calculated}}{\sum_i \sigma_{\gamma_i}^{calculated}}, \tag{23}$$

where $\sigma_\gamma^{measured}$ is measured with GEANIE, and $\sigma_\gamma^{calculated}$ is calculated using the STAPRE code. The cross sections obtained in this manner are in Figs. 15, 16, 17 and 18. We assume that while the calculation may not reproduce the details of the absolute magnitudes of the cross sections, it can accurately model the relative partitioning of the cross sections among the discrete γ rays.

VI. CONCLUSION

Excitation functions of prompt γ rays produced in the n+^{48}Ti reaction have been measured using the GEANIE spectrometer at the LANSCE/WNR facility. The individual γ-ray yields have been converted to partial transition cross sections as a function of incident neutron energy, by accounting for neutron flux, sample thickness, deadtime corrections, detector and fission chamber efficiencies, and internal conversion processes. The partial cross sections for γ rays decaying directly to the ground states of ^{48}Ti and ^{47}Ti have been summed separately to obtain lower limits of the ^{48}Ti(n,n$'\gamma$)^{48}Ti and ^{48}Ti(n,2nγ)^{47}Ti reaction cross sections, respectively. The lower limits for the ^{48}Ti(n,npγ)^{48}Sc and ^{48}Ti(n,n$\alpha\gamma$)^{45}Ca reaction cross sections have been also obtained based on the γ ray decaying directly to the ground state from the first excited state. These lower limits are combined with STAPRE calculations to deduce the channel cross sections. Some limitations of the current data have not been discussed that will need to be addressed to produce more reliable estimates of the channel cross sections. Angular-distribution effects, which could not be clearly characterized in these data set, might impose additional corrections to the individual partial cross sections. In order to quantify the limitations of the data, a sensitivity analysis has to be performed. Any estimate of the charged particle out channel cross section depend strongly on the model calculation. Therefore, it is also important to characterize the sensitivities and accuracy of the model calculations, especially in the case of the ^{48}Ti(n,α)^{45}Ca cross section. The results based on the present GEANIE data could be improved with additional work on both experimental and theoretical aspects of the problem. The angular-distrubution effects can be obtained with monochromatic beams.

VII. ACKNOWLEDGMENTS

This work was supported by in part by the U.S. Department of Energy Grants No. DE-FG03-03NA00076 and No. DE-FG02-97-ER41042, and was performed under the auspices of the U.S. Department of Energy by the University of California, Lawrence Livermore National Laboratory and Los Alamos National Laboratory under contract Nos. W-7405-ENG-48 and W-7405-ENG-36, respectively. This work has benefited from the use of the LANSCE accelerator facility, supported under DOE contract No. W-7405-ENG-36.

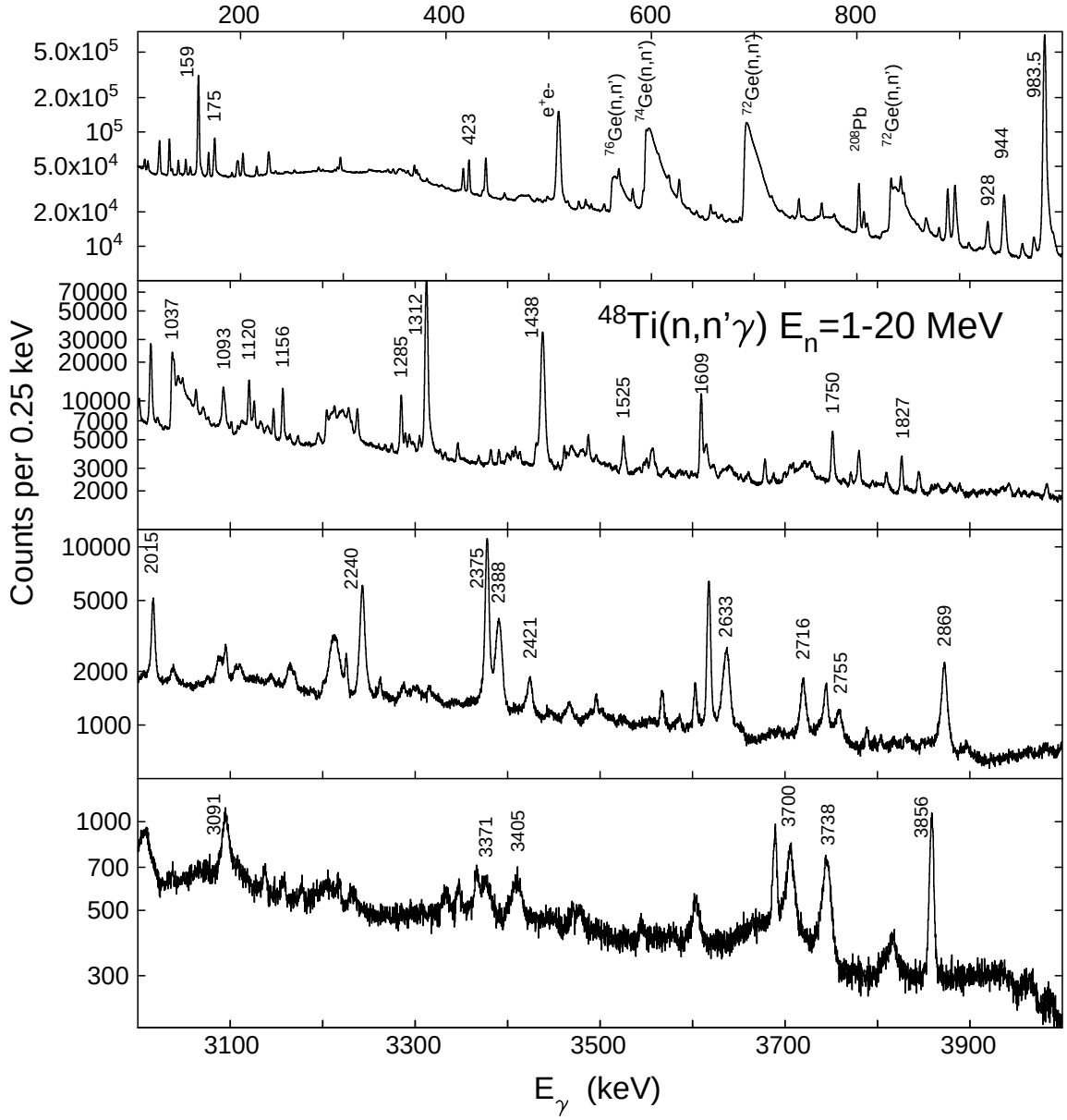

FIG. 2: Spectrum obtained from the sum of the coaxial detectors for the ^{48}Ti(n,n$'\gamma$) reaction. The condition on the time of flight corresponds to E$_n$=1-20 MeV neutrons. Some of the more prominent transitions in ^{48}Ti are labeled with their energies.

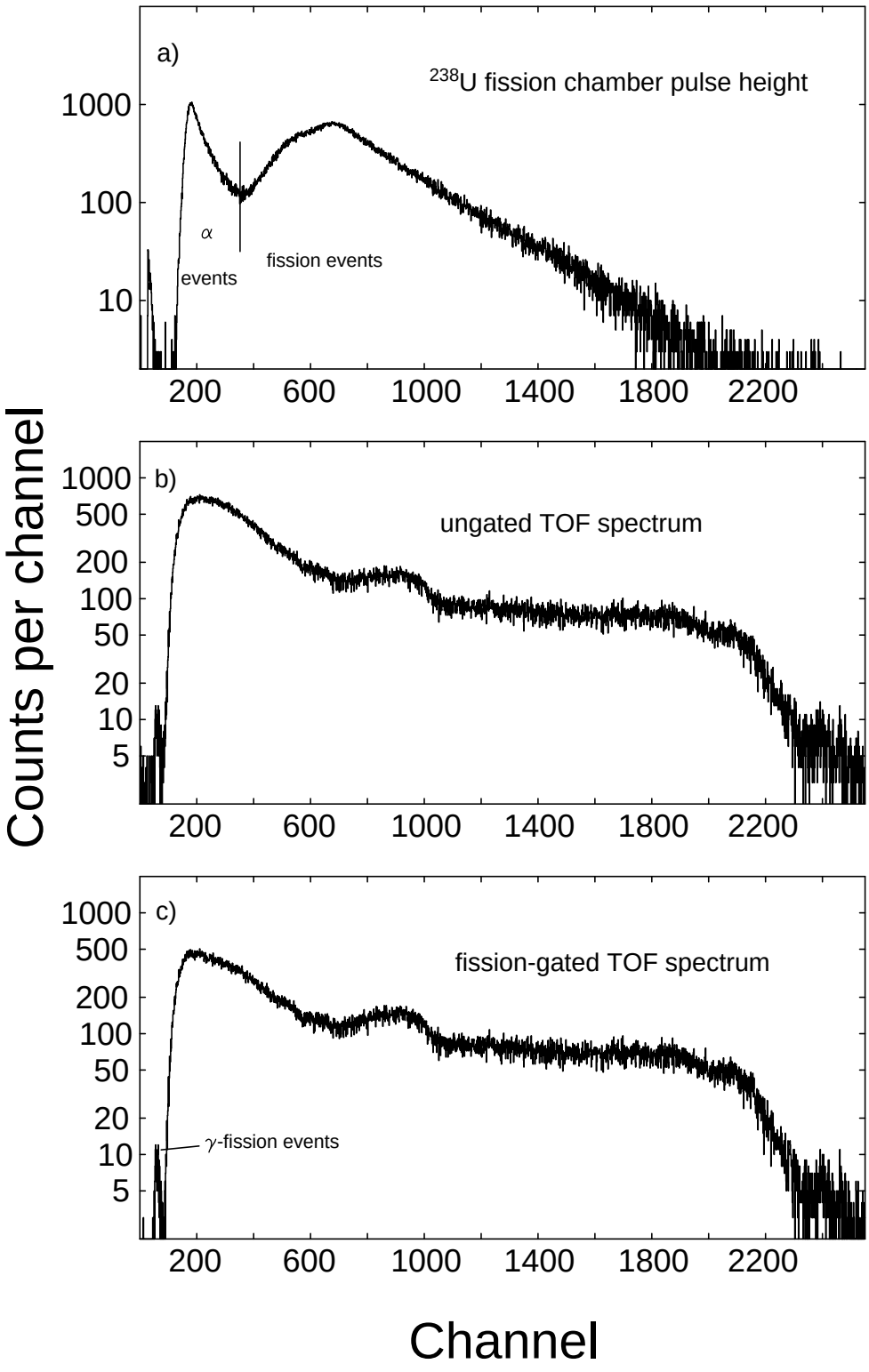

FIG. 3: Data obtained from the ^{238}U fission foil used to determine neutron intensity at the GEANIE spectrometer. In panel (a), the pulse height spectrum is shown. The vertical line corresponds to the lower limit on the pulse-height gate for a signal to be considered a fission event. In panel (b), the raw TOF spectrum is shown, defined as the time of the events in measured relative to the proton beam burst. In panel (c) the TOF spectrum resulting from the condition imposed in panel (a) is shown.

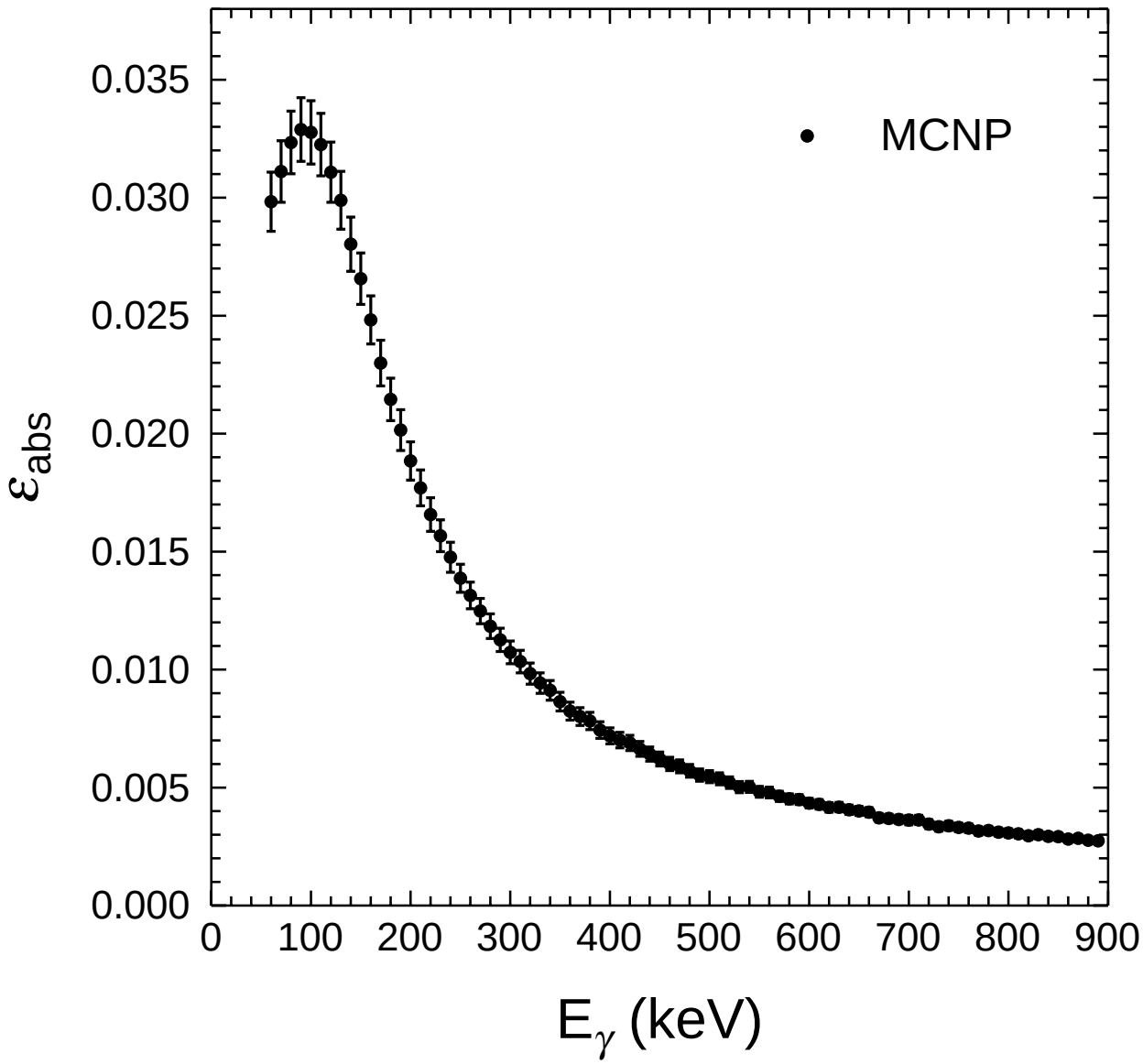

FIG. 4: Efficiency curve for the sum of planar data, calculated using the code MCNP [3, 4].

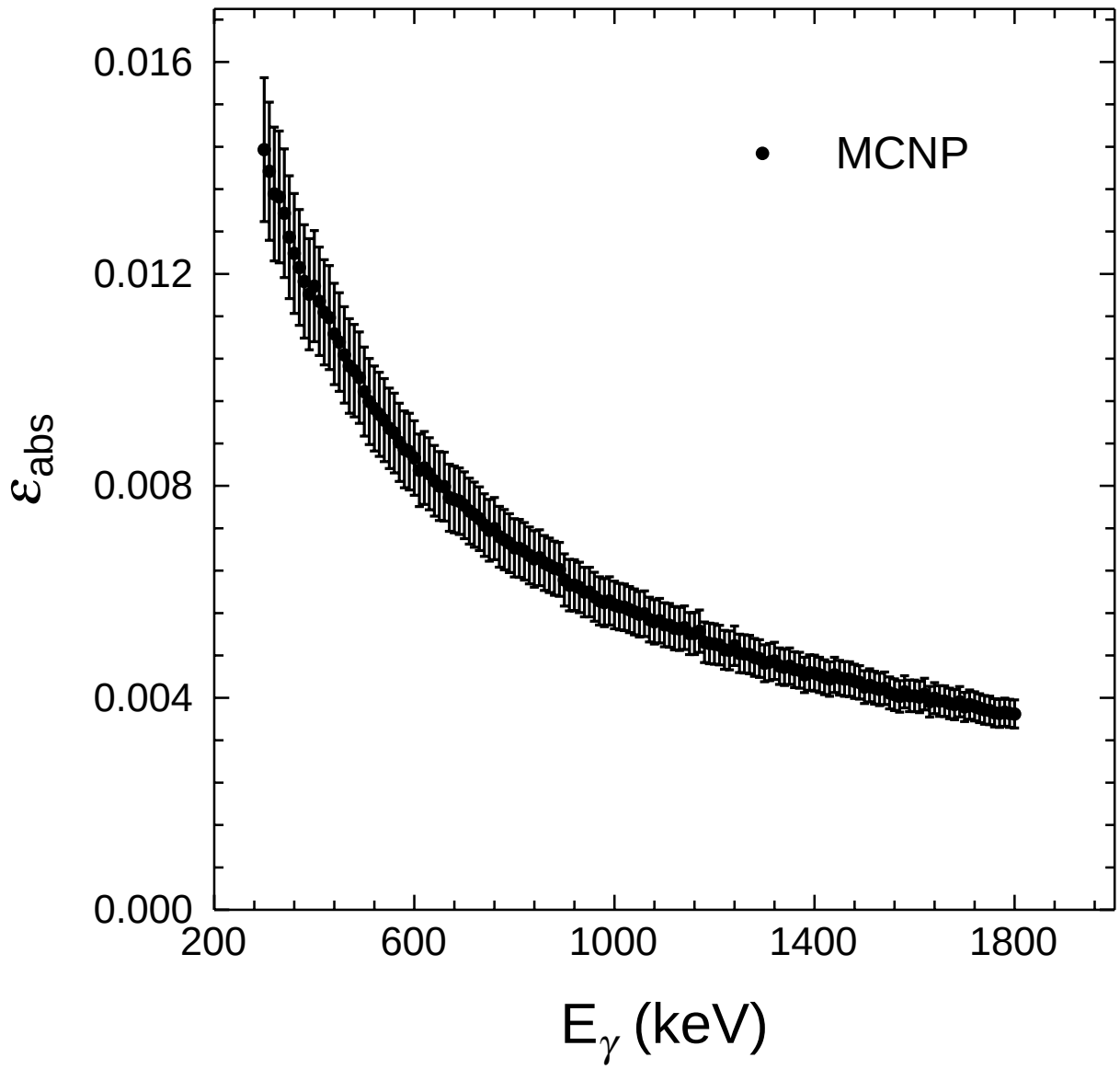

FIG. 5: Efficiency curve for the sum of coaxial data, calculated using the code MCNP [3, 4].

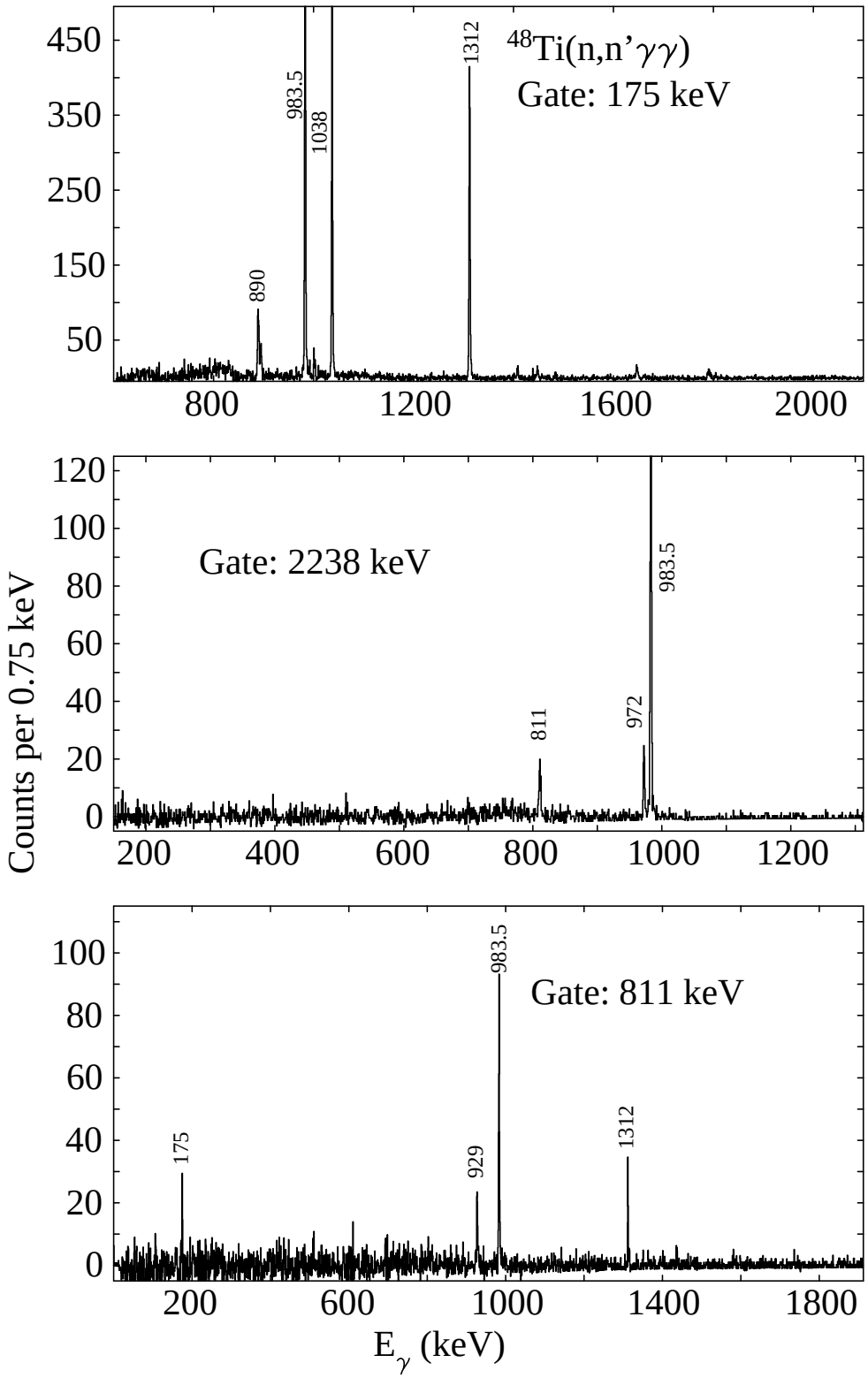

FIG. 6: Examples of $\gamma\gamma$ coincidence spectra used to place γ's following the ^{48}Ti(n,n$'$) reaction.

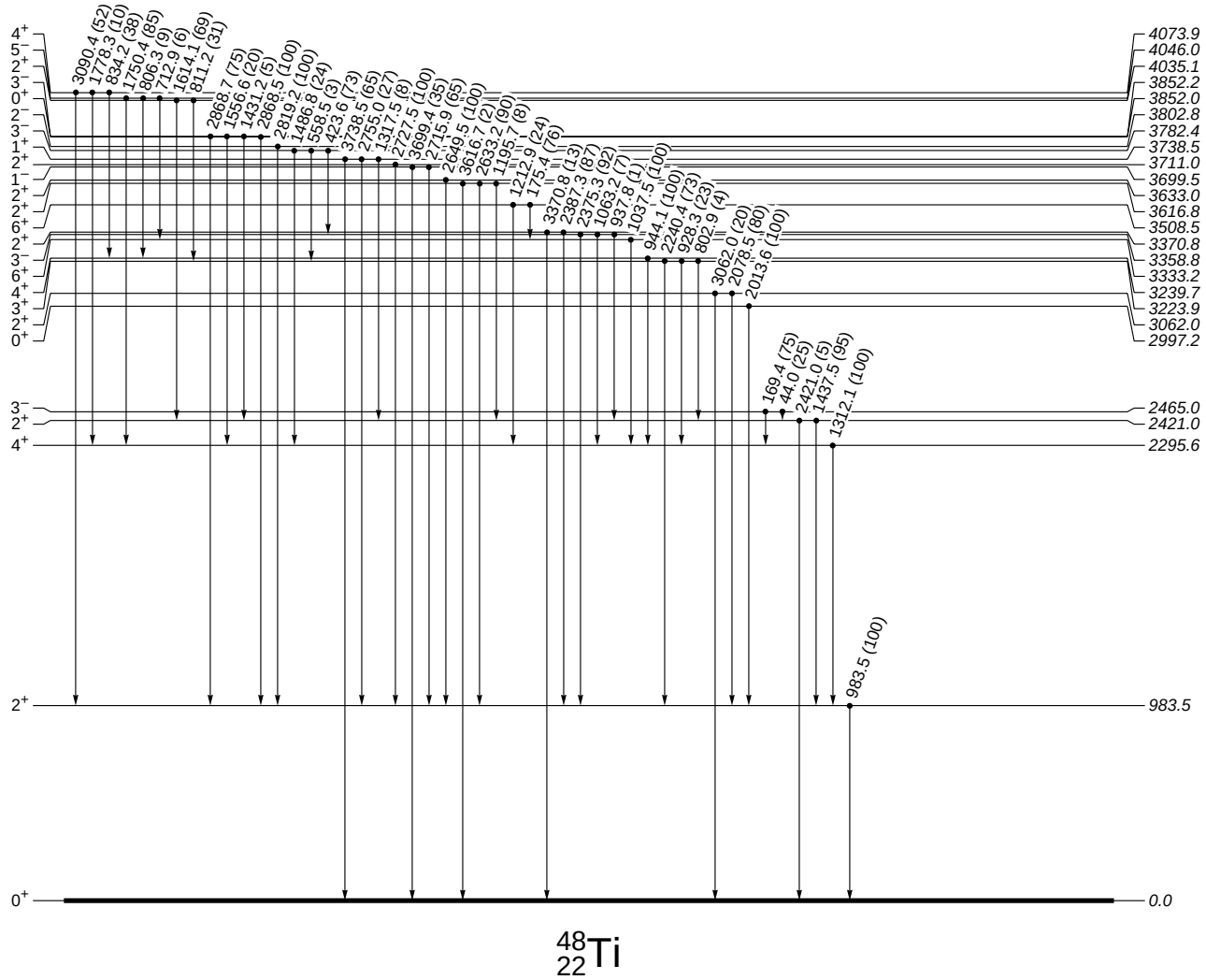

FIG. 7: Adopted level scheme of the ^{48}Ti for the STAPRE calculation.

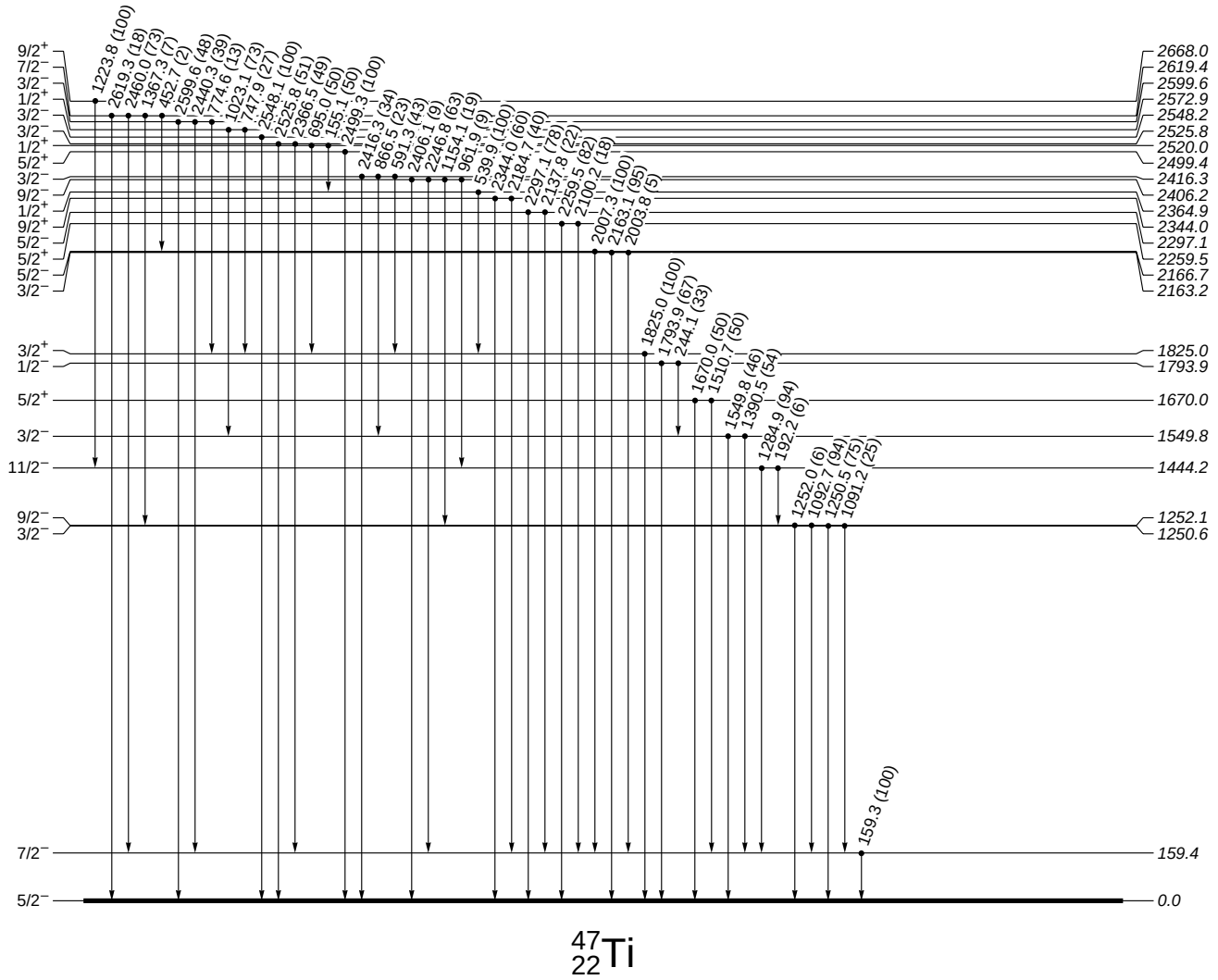

FIG. 8: Adopted level scheme of the ^{47}Ti for the STAPRE calculation.

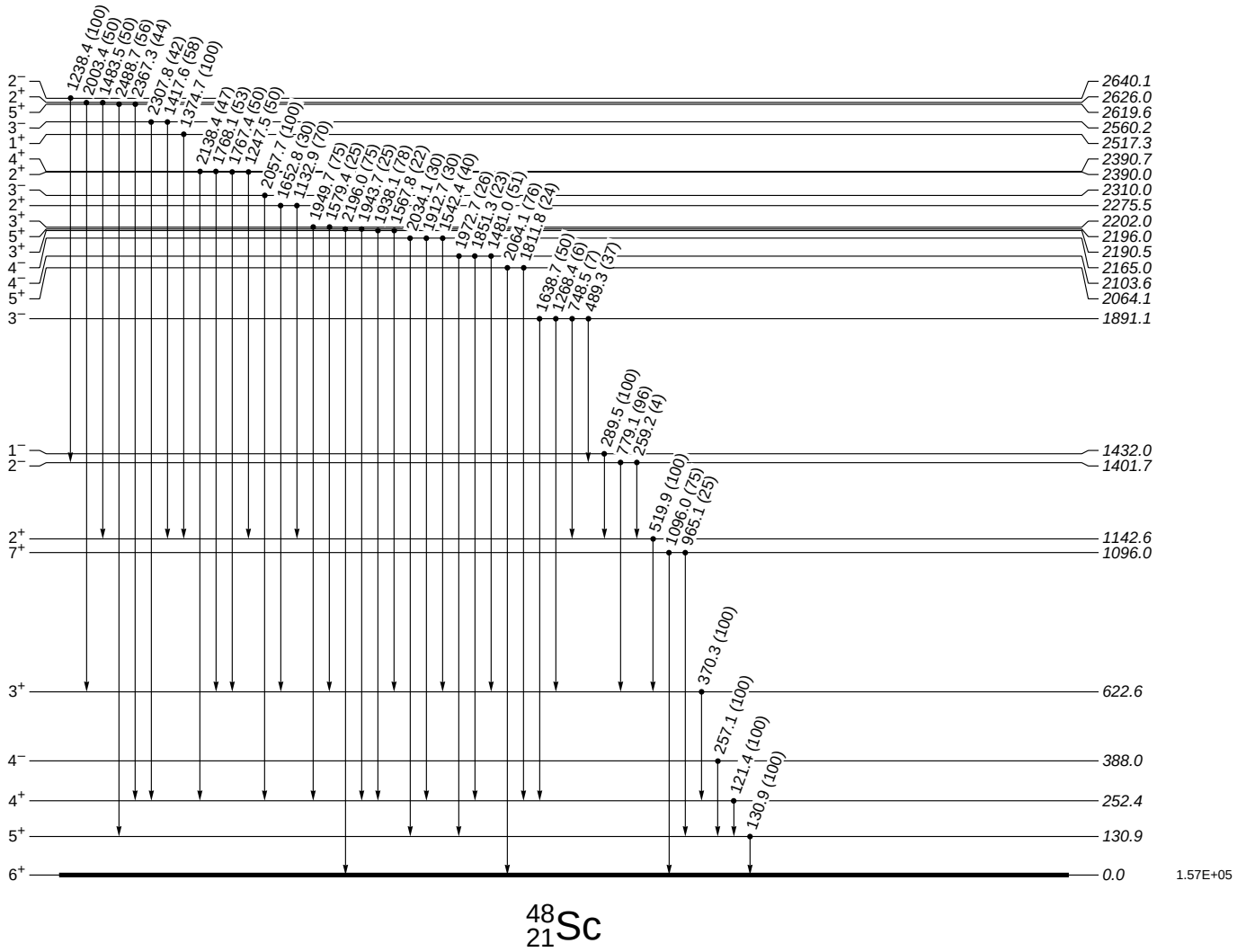

FIG. 9: Adopted level scheme of the ^{48}Sc for the STAPRE calculation.

FIG. 10: Adopted level scheme of the ^{45}Ca for the STAPRE calculation.

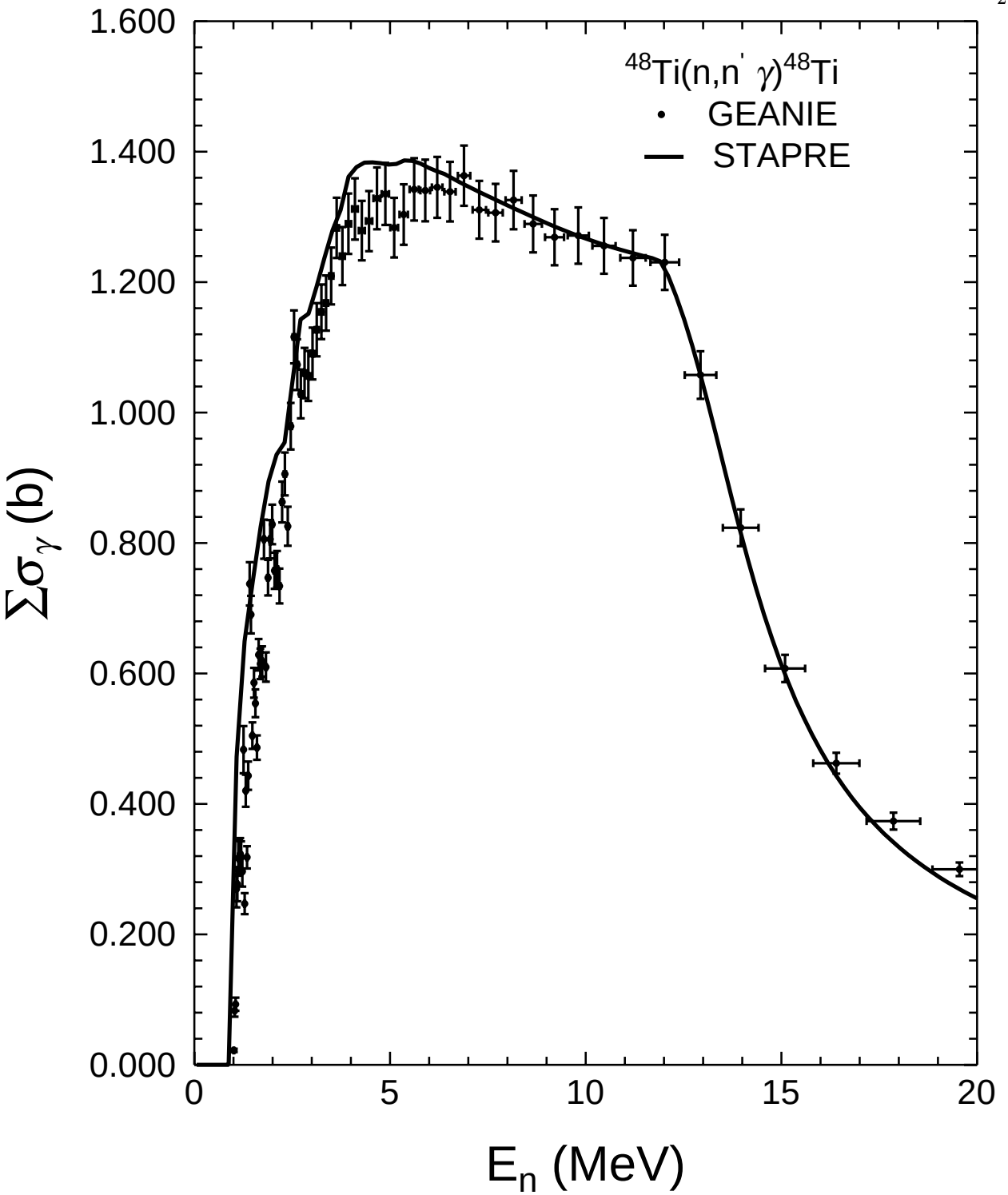

FIG. 11: Lower limit for the ^{48}Ti(n,n′γ)^{48}Ti reaction cross section, deduced from a sum of γ-ray cross sections, compared to the STAPRE prediction.

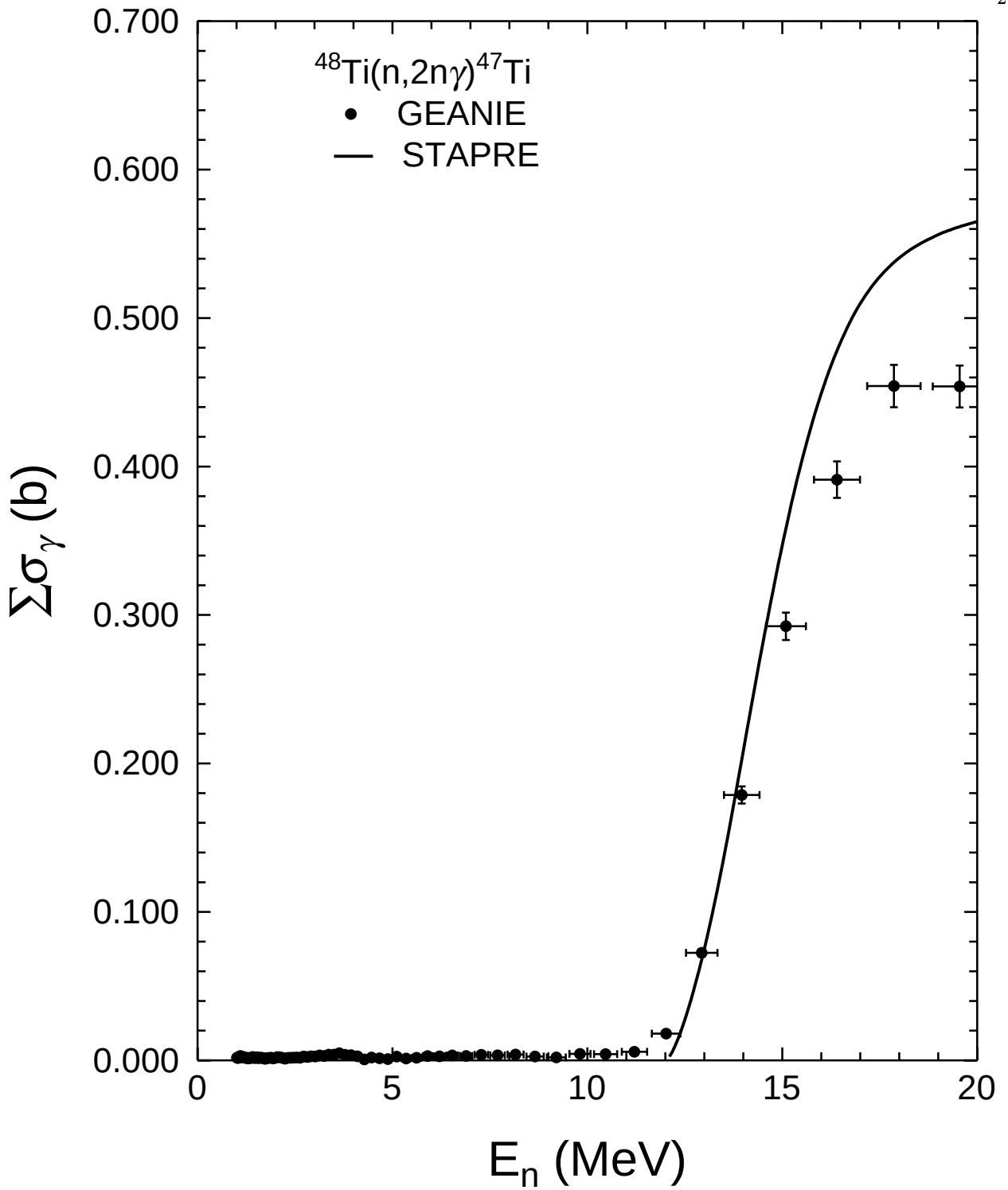

FIG. 12: Lower limit for the ^{48}Ti(n,2nγ)^{47}Ti reaction cross section, deduced from a sum of γ-ray cross sections, compared to the STAPRE prediction.

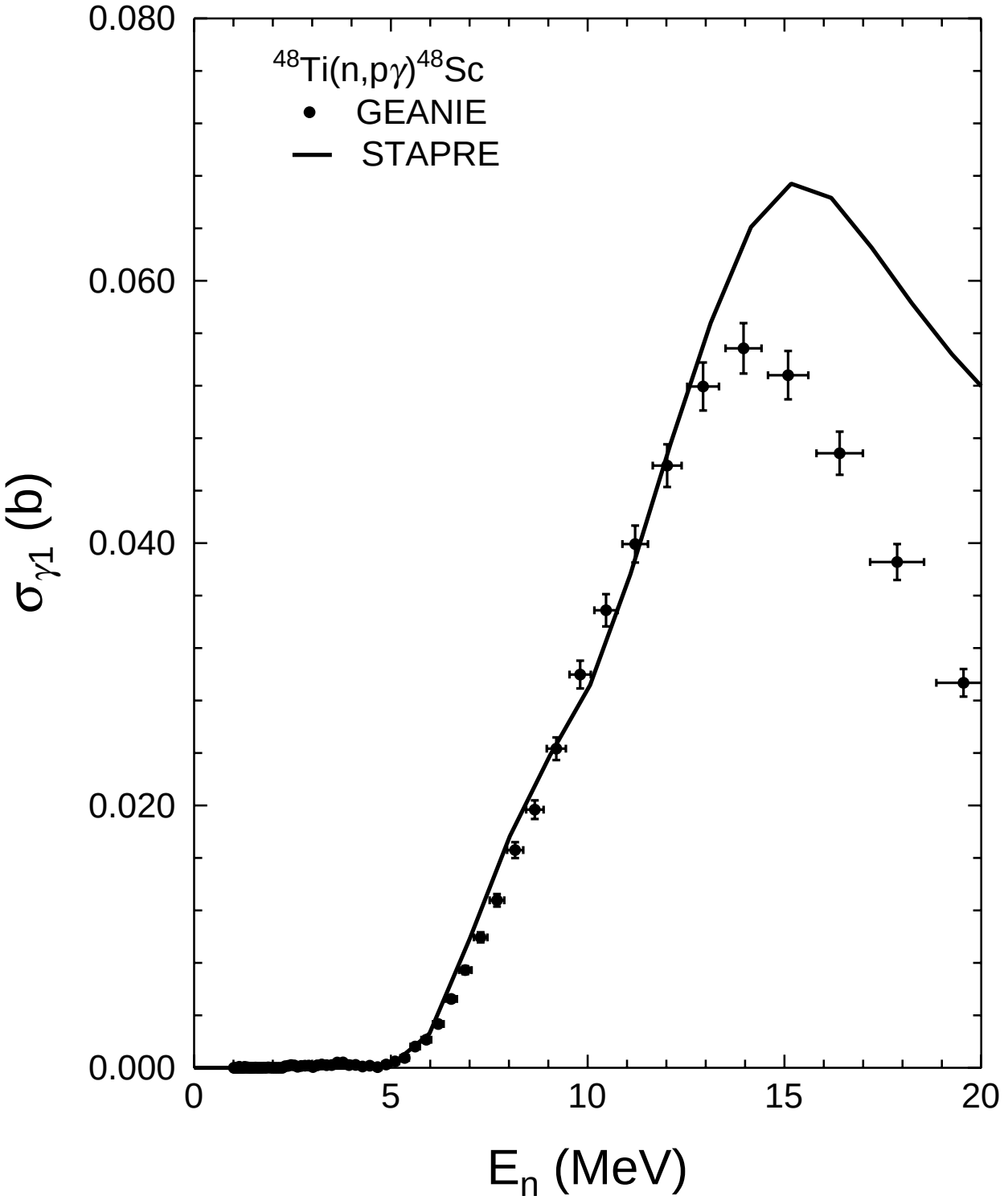

FIG. 13: Lower limit for the ^{48}Ti(n,pγ)^{48}Sc reaction cross section, based on a single γ-ray cross section, compared to the STAPRE prediction.

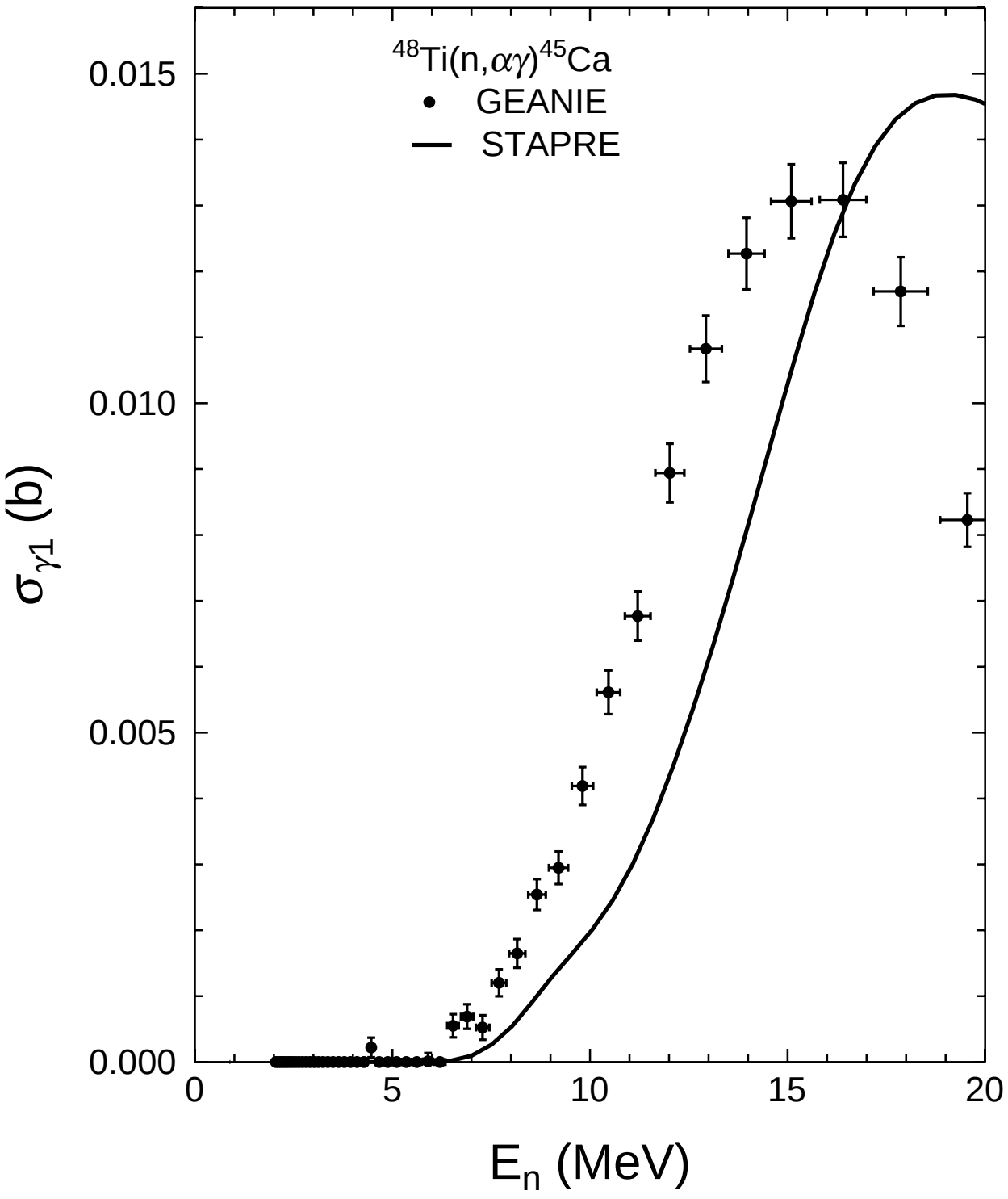

FIG. 14: Lower limit for the ^{48}Ti(n,$\alpha\gamma$)^{45}Ca reaction cross section, based on a single γ-ray cross section, compared to the STAPRE prediction.

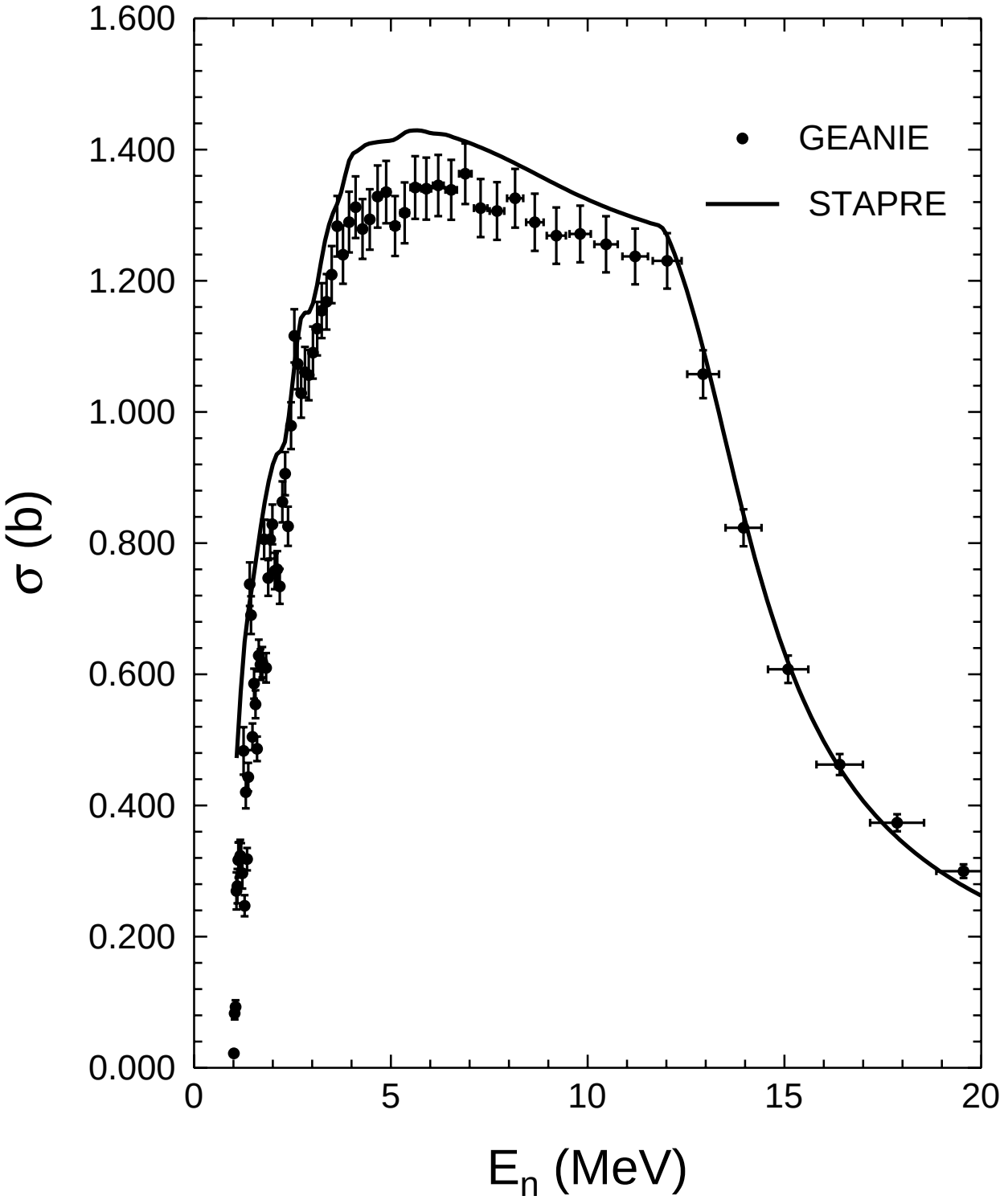

FIG. 15: Deduced cross section for the ^{48}Ti(n,n′)^{48}Ti reaction, compared to the STAPRE prediction.

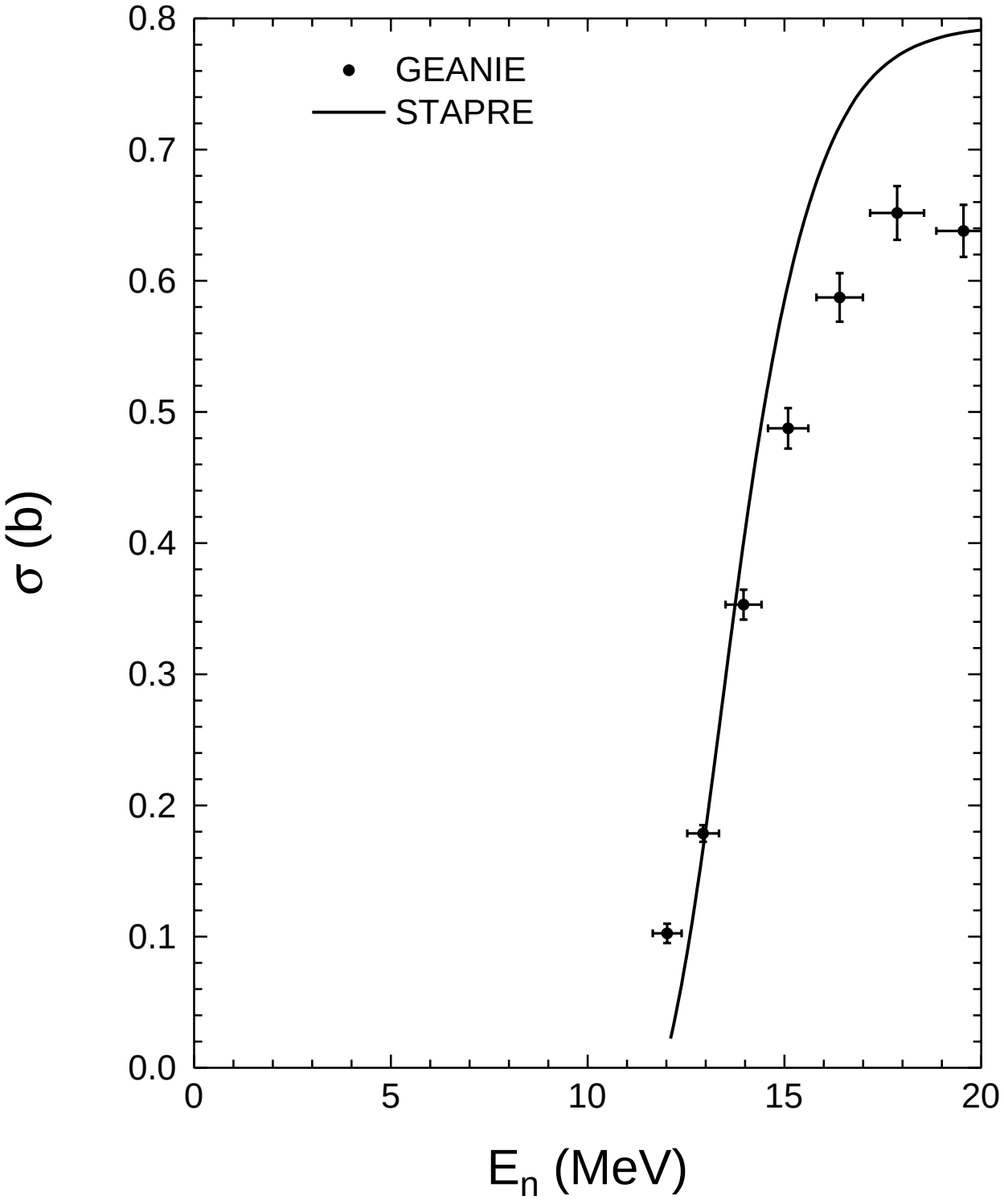

FIG. 16: Deduced cross section for the ^{48}Ti(n,2n)^{47}Ti reaction, compared to the STAPRE prediction.

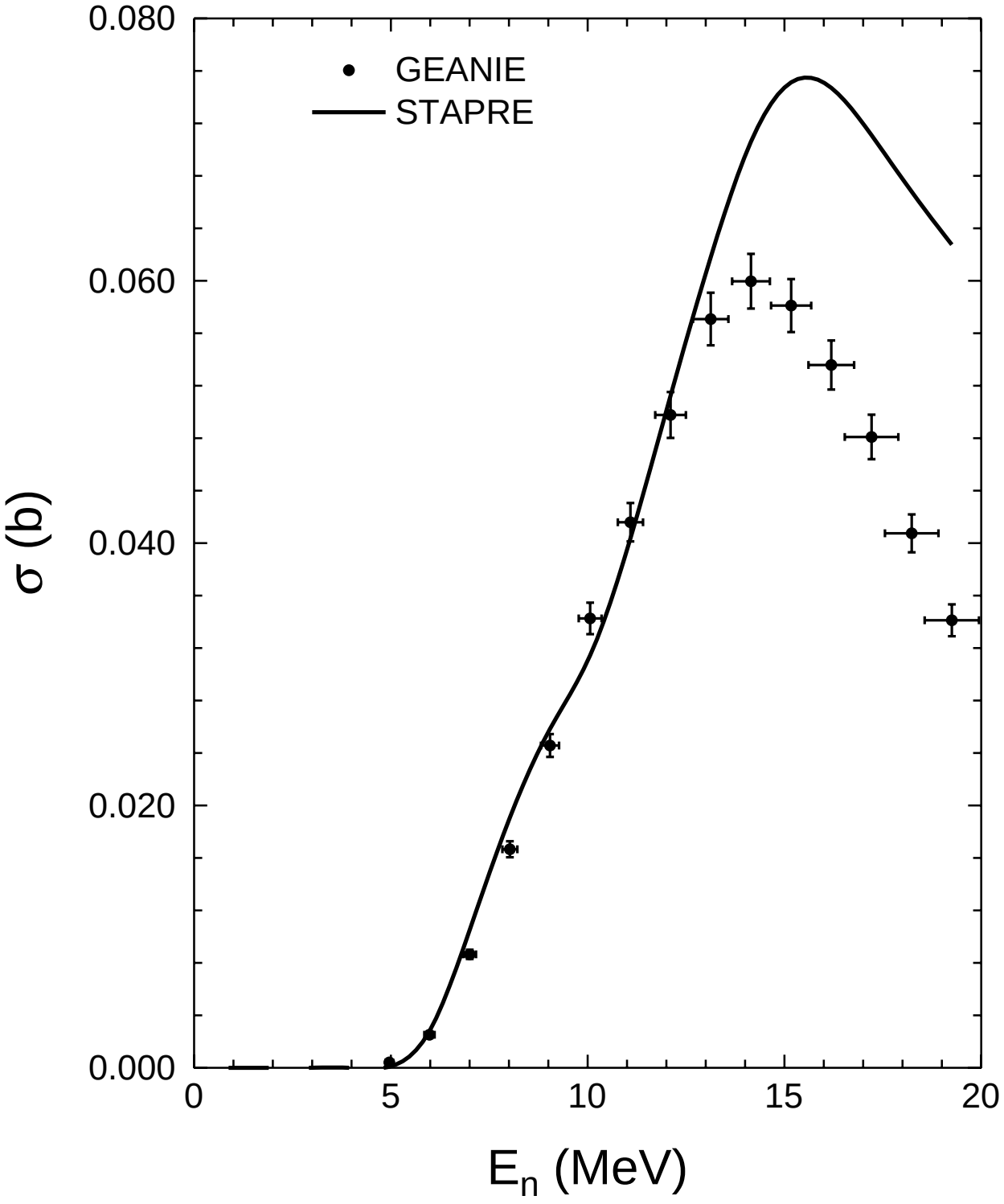

FIG. 17: Deduced cross section for the ^{48}Ti(n,p)^{48}Sc reaction, compared to the STAPRE prediction.

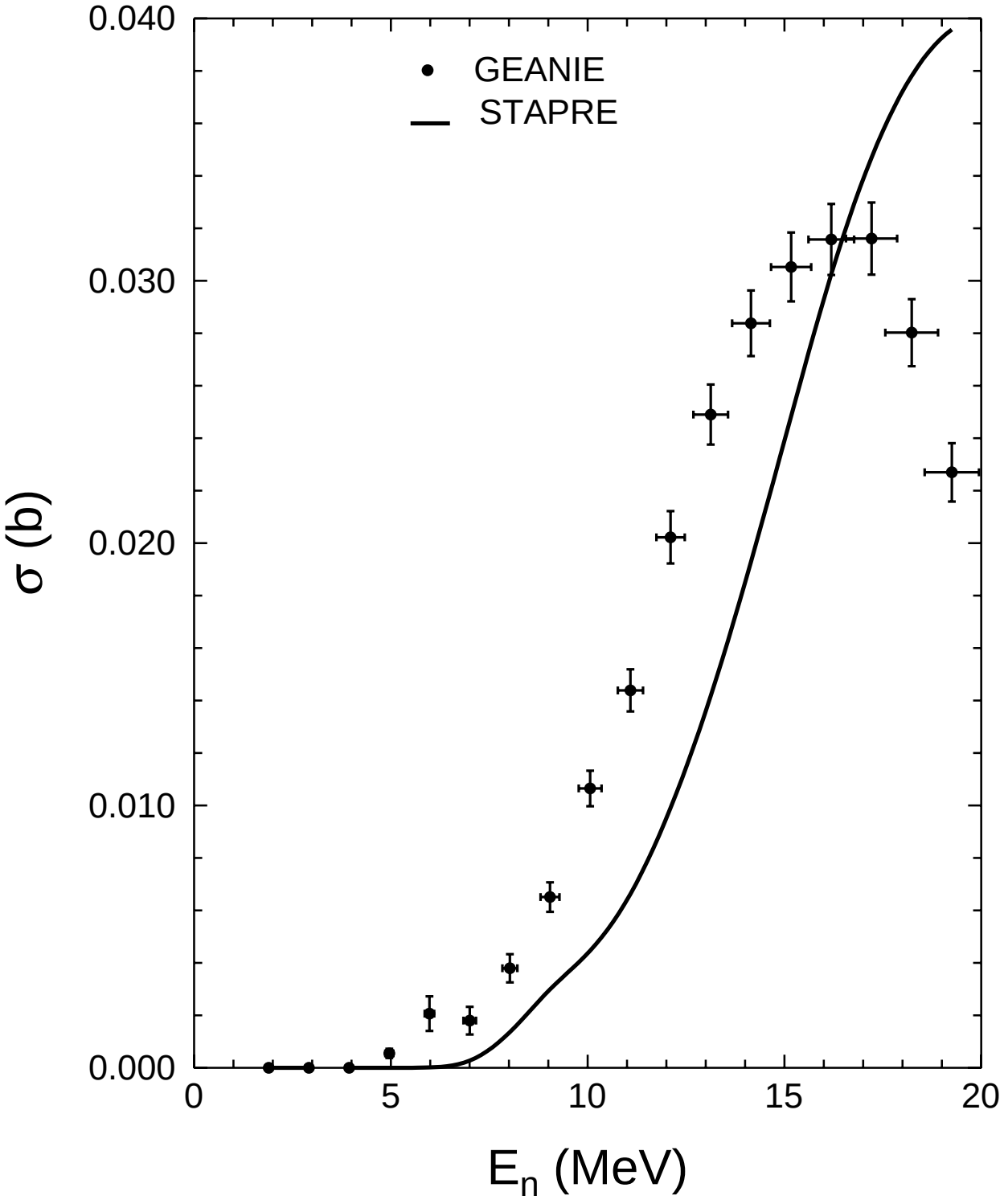

FIG. 18: Deduced cross section for the ^{48}Ti(n,α)^{45}Ca reaction, compared to the STAPRE prediction.

APPENDIX A: SUMMARY OF EXPERIMENTAL DETAILS

The details of the n + ^{48}Ti experiment using GEANIE discussed in this paper are summarized in the tables below for easy reference. The data were acquired in two separate sets of experimental runs: one with an ^{48}Ti sample, the other with ^{48}Ti sample sandwiched between ^{Nat}Fe foils. The experimental parameters are summarized in Tables I and II, respectively.

TABLE I: Summary of experimental details for the n + ^{48}Ti experiment.

Quantity	Value
Data label	**48Ti01**
Run dates	10/10/01-10/15/01
Beam structure	
Rep. rate	100 Hz
Micropulse spacing	1.8 μs
Beam gate length	625 μs
Typical proton current	4.0 μA
Beam absorbers	0.6$''$ Pb
Sample areal density	0.7285 g/cm^2 (uncertainty unknown)
Sample thickness	$\approx$ 1.7 mm
Sample atomic assay	99.81% ^{48}Ti
Sample orientation	251° on dial (109° with respect to beam)
Detector absorbers	none
Deadtimes	
Planar-data sum	62.0%
Coaxial-data sum	58.0%
^{235}U fission foil	52.0%
^{238}U fission foil	50.9%
Typical array rate	2100 Hz (total γ-or rate)
Total counts:	4.6×10^8

TABLE II: Summary of experimental details for n + ^{48}Ti experiment with iron foils.

Quantity	Value
Data label	**48Ti03**
Run dates	08/28/03-08/31/03
Beam structure	
Rep. rate	100 Hz
Micropulse spacing	1.8 μs
Beam gate length	625 μs
Typical proton current	3.2 μA
Beam absorbers	0.75$''$ black poly, 0.5$''$ Pb
Sample areal density	0.7285 g/cm^2 (uncertainty unknown)
Sample thickness	$\approx$ 1.7 mm
Sample atomic assay	99.81% ^{48}Ti
Sample orientation	251° on dial (109° with respect to beam)
Detector absorbers	none
Deadtimes	
Planar-data sum	60.8%
Coaxial-data sum	55.4%
^{235}U fission foil	60.0%
^{238}U fission foil	50.1%
Typical array rate	2900 Hz (total γ-or rate)
Total counts:	4.4×10^8

APPENDIX B: PEAK-SHAPE AND BACKGROUND FIT PARAMETERS

The γ-ray spectra analyzed in this paper were fit using the code XGAM [9]. The code was developed specifically to process complex GEANIE spectra by constraining peak shapes through a consistent fit of the entire spectrum at once. The parameters used in the fit to the sum of planar data are summarized in Table III, and the corresponding fit to the $E_n = 1-20$-MeV projection is shown in Fig. 19. Similarly, the parameters for the coaxial-sum fit are given in Table IV, and the fit to the $E_n = 1-20$-MeV projection is shown in Fig. 20.

The peak shapes are parameterized as a Gaussian function with an energy-dependent width given by

$$w(x) = \sqrt{w_0^2 + w_1^2 \left(\frac{x}{1000}\right) + w_2^2 \left(\frac{x}{1000}\right)^2}, \tag{B1}$$

where x is the channel position of the peak centroid, related to the γ-ray energy through the calibration discussed in appendix C. Further components are added to the Gaussian shapes to simulate the realistic response of the germanium detectors. A high-energy tail is produced using a Gaussian function convoluted with an exponential decay. The magnitude of the high-energy tail is given by R_h, and the decay constant is β_h. A smoothed step function simulates Compton effects, with a magnitude set by the parameter S. A Gaussian asymmetry term, discussed in [31], is also included with a magnitude set by the energy-dependent parameters p_3 and p_4.

TABLE III: Parameters used in the fit to the planar-data sum spectrum. The meaning of the peak-shape parameters is explained in the text. The last row gives the χ^2 per degree of freedom for the fit.

Parameter	Value
Fit label	**planar**
E_n range	1–20 MeV
Channel range fitted	x = 1600–15970
Background polynomial order	12
Number of peaks	192
w_0	10.80
w_1	4.70
w_2	1.68
R_h	15.12
β_h	15.05
S	0.00131
p_3	$4.12 \times 10^{-3} + 1.76 \times 10^{-6} x$
p_4	$1.28 \times 10^{-6} + 5.87 \times 10^{-11} x$
χ^2/ν	1.53

TABLE IV: Parameters used in the fit to the coaxial-data sum spectrum. The meaning of the peak-shape parameters is explained in the text. The last row gives the χ^2 per degree of freedom for the fit.

Parameter	Value
Fit label	**coax**
E_n range	1–20 MeV
Channel range fitted	x = 600–16000
Background polynomial order	12
Number of peaks	472
w_0	6.21
w_1	0.05
w_2	1.20
R_h	13.98
β_h	8.84
S	0.017
p_3	$1.01 \times 10^{-2} + 1.90 \times 10^{-6} x$
p_4	$1.73 \times 10^{-7} + 2.35 \times 10^{-10} x$
χ^2/ν	1.87

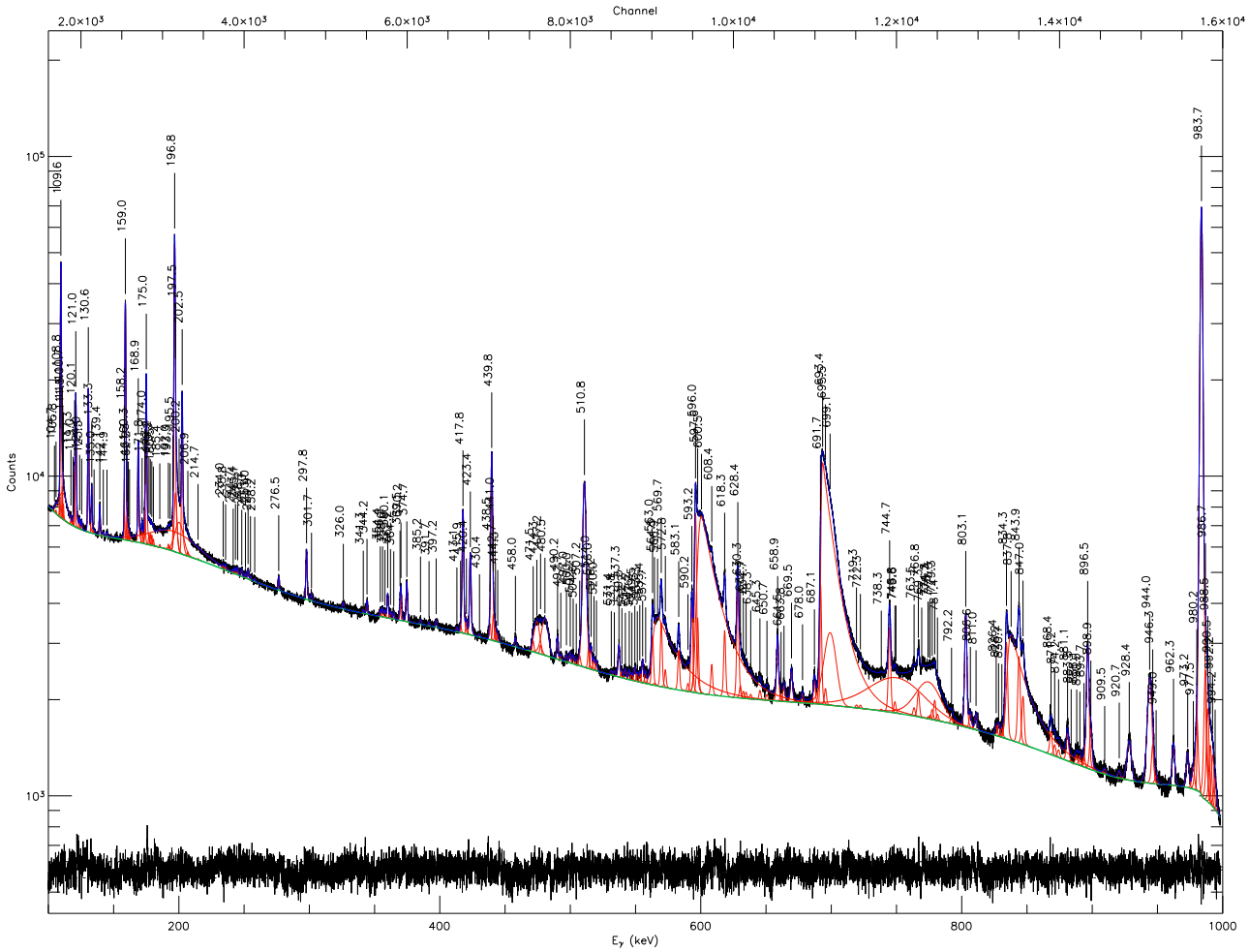

FIG. 19: Plot of fit **planar** to planar-data sum spectrum (see Table III). The data are shown as a black histogram, the fit is plotted as a blue line, and the background (polynomial + Compton step) is shown in green, the residual spectrum is plotted at the bottom. Individually-fitted peaks are plotted in red.

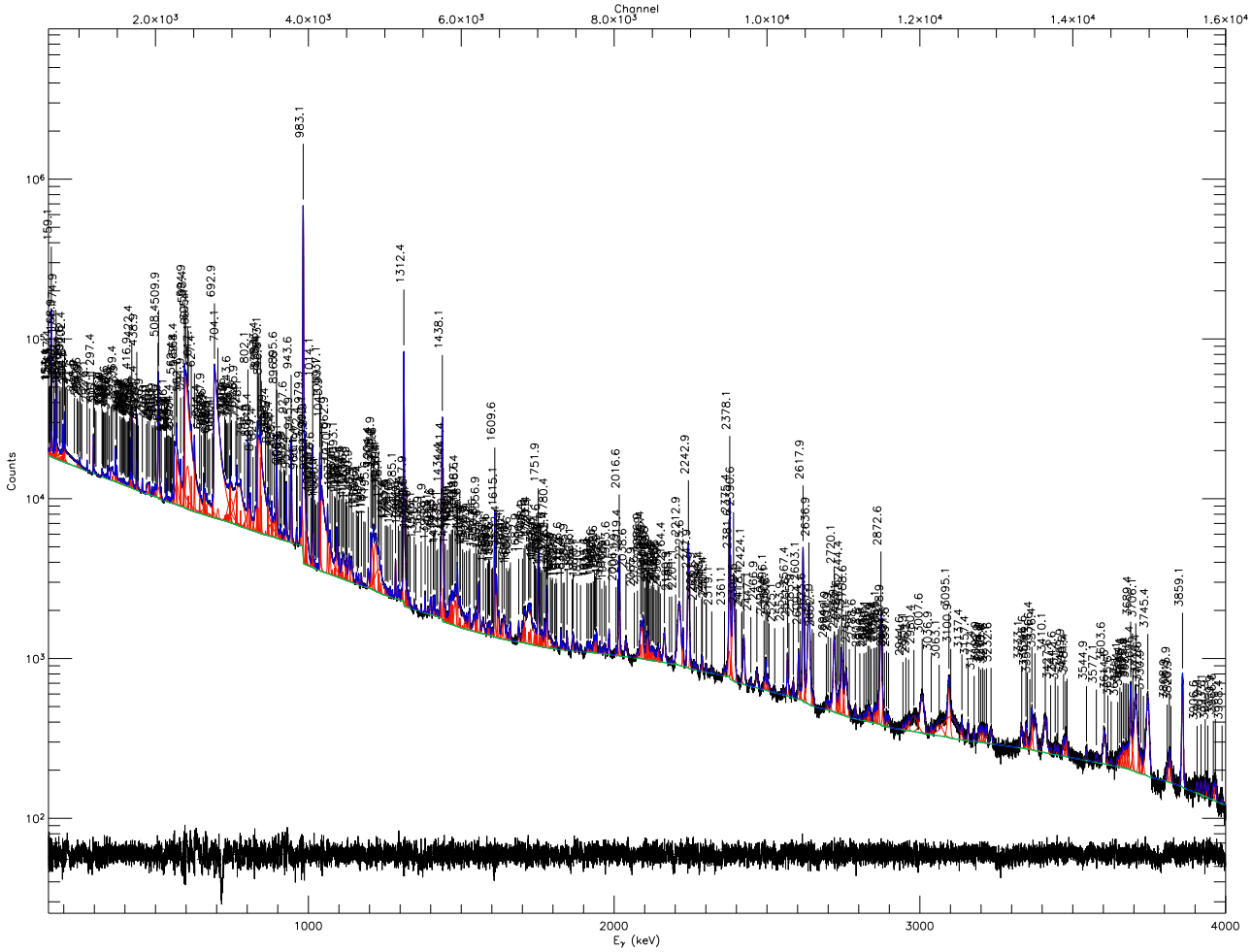

FIG. 20: Plot of fit **coax** to coaxial-data sum spectrum (see Table IV). The data are shown as a black histogram, the fit is plotted as a blue line, and the background (polynomial + Compton step) is shown in green, the residual spectrum is plotted at the bottom. Individually-fitted peaks are plotted in red.

APPENDIX C: BEAM-ON γ-RAY CALIBRATION

The γ-ray energy calibration is performed using beam-on γ ray transitions with well-known energies. These include transitions produced by the n+^{48}Ti reaction, as well as standard background transitions observed in all GEANIE experiments. A summary of the calibration transition used for the planar and coaxial data can be found in Tables V and VI, respectively. The relationship between accepted energies, E_γ^{true}, and the channel position in the GEANIE spectrum is fitted with a straight line. The residual of this fit, E_γ^{true}-E_γ^{lin}, is then fitted using a polynomial of order 6 for planar and coaxial data. The calibration curves are shown in Figs. 21 and 22 for planar and coaxial data, respectively.

TABLE V: Calibration transitions used in the planar fit. The average deviation from the accepted energy is 8 eV, with a standard deviation of 146 eV.

$E_\gamma^{(true)}$ (keV)	$E_\gamma^{(cal)}$ (keV)	$E_\gamma^{(true)}$-$E_\gamma^{(cal)}$ (keV)	Identification
109.894(5)	109.891(7)	0.003	19F@109.9
121.410(40)	121.503(8)	−0.093	48Sc@252.35
130.940(40)	131.092(10)	−0.152	48Sc@130.94
159.369(20)	159.321(11)	0.048	47Ti@159.4
175.361(50)	175.420(8)	−0.059	48Ti@3508.5
197.143(4)	197.141(5)	0.002	19F@197.1
202.860(10)	202.872(6)	−0.012	127I@202.9
370.290(50)	370.230(30)	0.060	48Sc@622.64
423.629(9)	423.631(13)	−0.002	48Ti@3782.44
458.450(160)	458.159(66)	0.291	48Ti@4196.83
537.470(40)	537.510(42)	−0.040	206Pb@1340.5
669.600(70)	669.540(56)	0.060	207Bi@669.6
744.700(90)	744.624(36)	0.076	127I@744.7
803.060(30)	803.080(30)	−0.020	206Pb@803.0
811.198(18)	810.897(159)	0.301	48Ti@4035.115
896.280(60)	896.669(38)	−0.389	209Bi@896.3
928.290(11)	928.331(103)	−0.041	48Ti@3223.9
944.104(7)	943.897(100)	0.207	48Ti@3239.7
972.910(30)	972.980(114)	−0.070	48Ti@4196.8
983.517(5)	983.518(8)	−0.001	48Ti@983.5

TABLE VI: Calibration transitions used in the coax fit. The average deviation from the accepted energy is -34 eV, with a standard deviation of 350 eV.

$E_\gamma^{(true)}$ (keV)	$E_\gamma^{(cal)}$ (keV)	$E_\gamma^{(true)}$-$E_\gamma^{(cal)}$ (keV)	Identification
159.369(20)	158.945(13)	0.424	47Ti@159.4
175.361(50)	174.906(11)	0.455	48Ti@3508.5
197.143(4)	197.384(14)	−0.241	19F@197.1
423.629(9)	423.558(10)	0.071	48Ti@3782.44
458.450(160)	458.045(32)	0.405	48Ti@4196.83
811.198(18)	811.266(28)	−0.068	48Ti@4035.115
928.290(11)	928.278(12)	0.012	48Ti@3223.9
944.104(7)	944.105(13)	−0.001	48Ti@3239.7
972.910(30)	972.941(18)	−0.031	48Ti@4196.8
983.517(5)	983.538(5)	−0.021	48Ti@983.5
1037.599(26)	1037.553(9)	0.046	48Ti@3333.178
1063.190(50)	1063.270(19)	−0.080	48Ti@3358.8
1195.830(60)	1195.671(72)	0.159	48Ti@3616.784
1312.096(6)	1312.073(6)	0.023	48Ti@2295.6
1430.220(40)	1430.827(96)	−0.607	47Ti@2682.31

TABLE VI: (Continued.)

$E_\gamma^{(true)}$ (keV)	$E_\gamma^{(cal)}$ (keV)	$E_\gamma^{(true)}$-$E_\gamma^{(cal)}$ (keV)	Identification
1437.487(11)	1437.448(9)	0.039	48Ti@2421.023
1479.339(18)	1479.329(112)	0.010	48Ti@4719.1
1486.820(30)	1486.809(29)	0.011	48Ti@3782.436
1614.041(19)	1614.140(36)	−0.099	48Ti@4035.1
2013.660(45)	2014.607(21)	−0.947	48Ti@2997.19
2036.349(13)	2036.520(146)	−0.171	48Ti@4457.42
2161.759(14)	2161.873(129)	−0.114	48Ti@4457.4
2240.375(19)	2240.306(23)	0.069	48Ti@3223.924
2375.211(19)	2375.058(19)	0.153	48Ti@3358.8
2387.249(26)	2387.530(37)	−0.281	48Ti@3370.842
2633.200(30)	2633.167(40)	0.033	48Ti@3616.784
2715.810(130)	2716.216(59)	−0.406	48Ti@3699.45
2868.590(40)	2868.581(54)	0.009	48Ti@3852.23
3090.820(60)	3090.605(145)	0.215	48Ti@4074.5
3403.830(70)	3404.952(247)	−1.122	48Ti@4387.654
3699.110(120)	3699.160(180)	−0.050	48Ti@3699
3738.350(240)	3738.027(179)	0.323	48Ti@3738
3808.580(70)	3807.934(551)	0.646	48Ti@4792.25

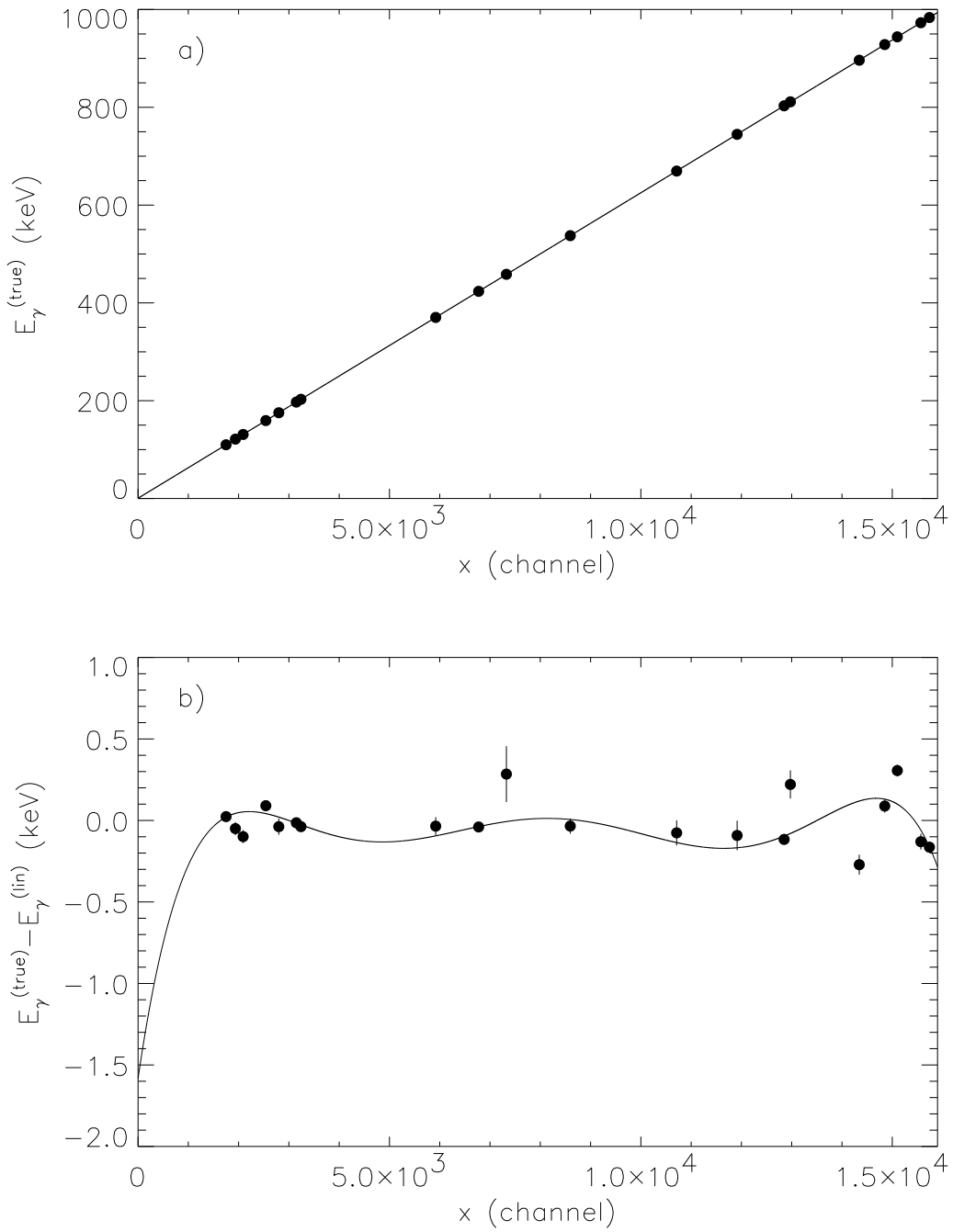

FIG. 21: Gamma-ray energy calibration for the planar-detector data: a) linear calibration and b) sixth-order polynomial non-linearity correction.

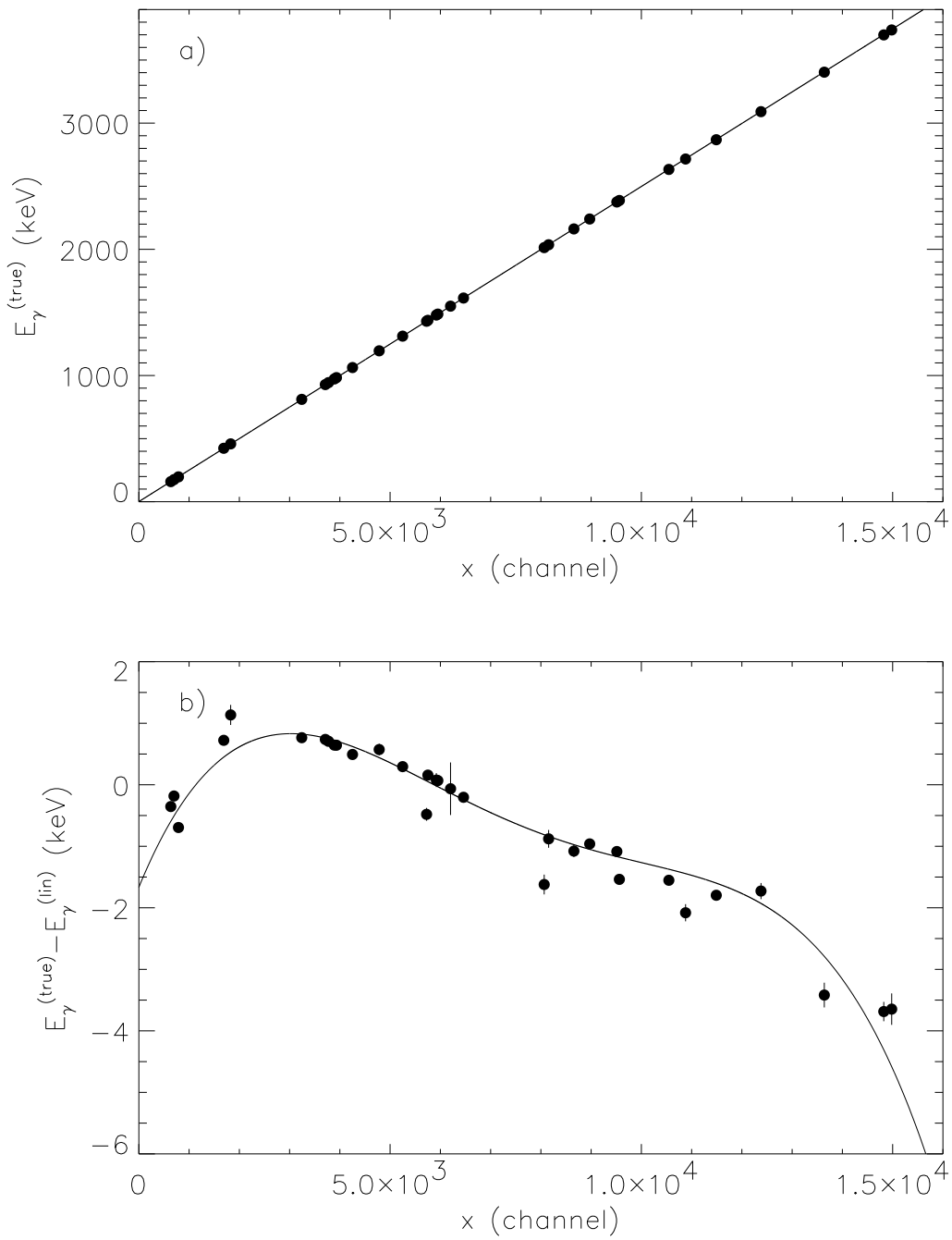

FIG. 22: Gamma-ray energy calibration for the coaxial-detector data: a) linear calibration and b) sixth-order polynomial non-linearity correction.

APPENDIX D: IRON LINE ANALYSIS

In order to check the technique and system consistency, experimental runs were performed with the titanium target sandwiched between iron foils. The partial γ-ray cross section for the 847-keV transition in n+^{56}Fe is compared with an evaluated value [13] at a neutron energy 14.5 MeV.

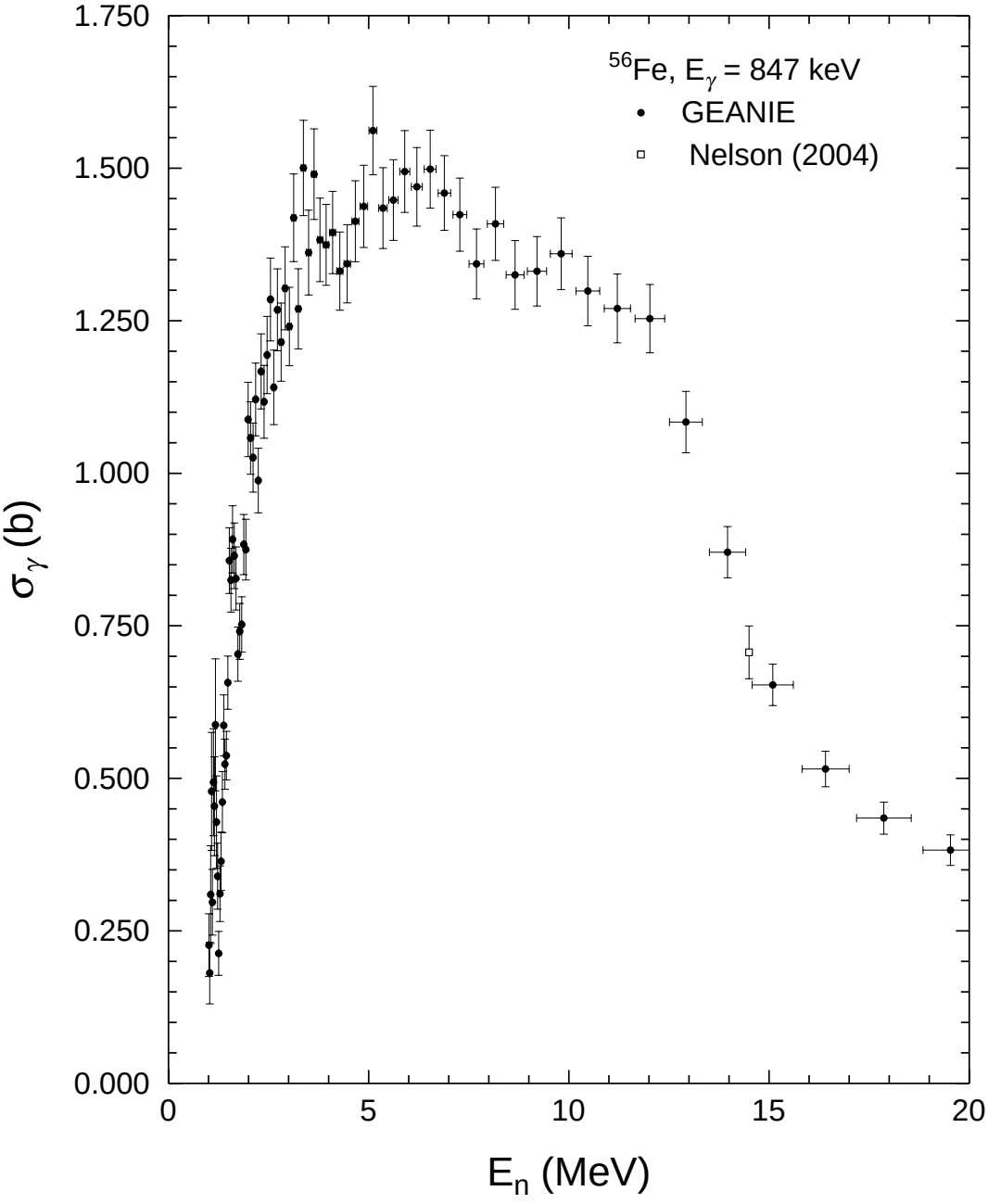

FIG. 23: Partial γ-ray cross section for the ^{56}Fe 847-keV transition measured in the planar detectors, and compared with an evaluation at E_n=14.5 MeV by Nelson [13].

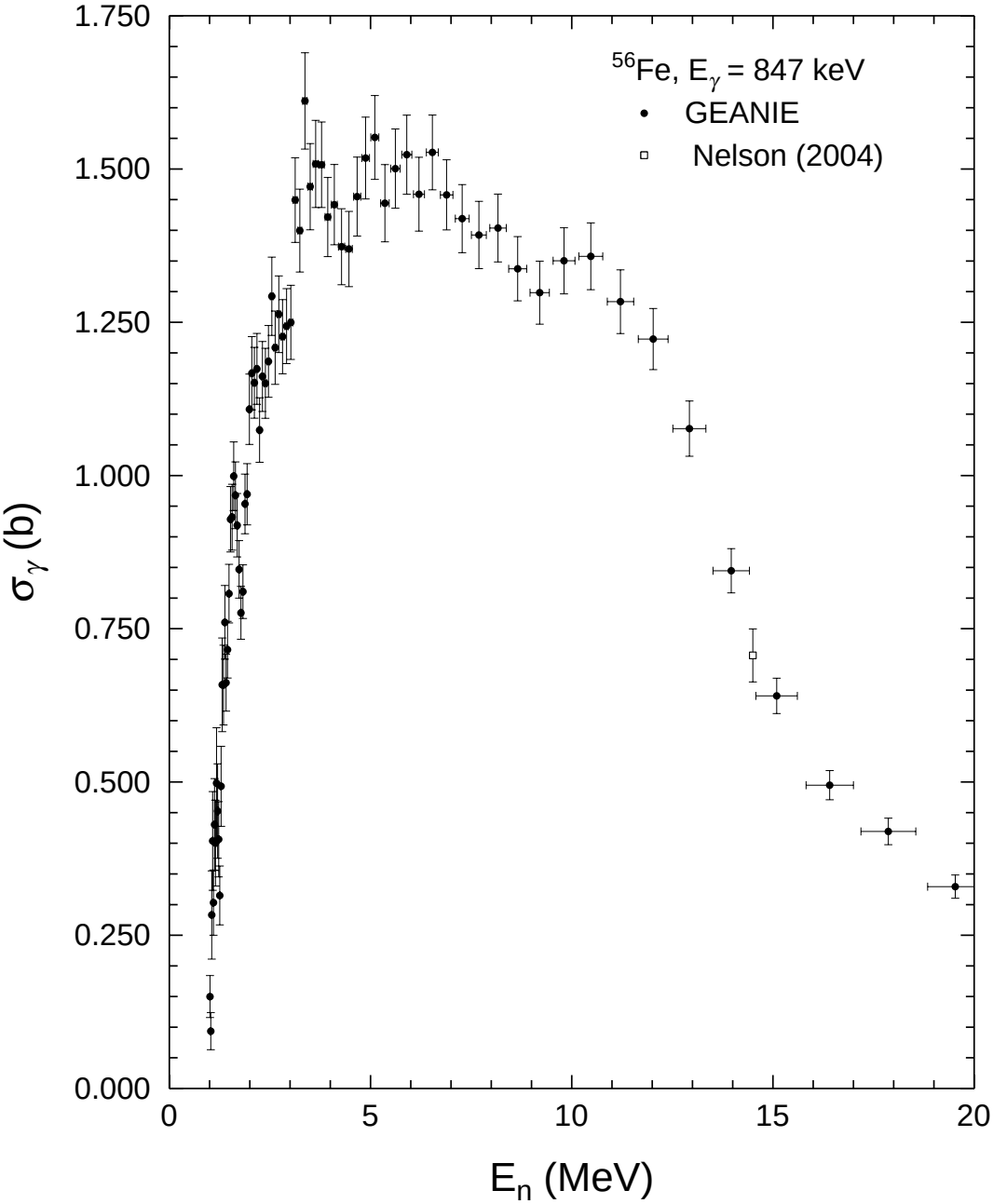

FIG. 24: Partial γ-ray cross section for the ^{56}Fe 847-keV transition measured in coaxial detectors, and compared with an evaluation at E_n=14.5 MeV by Nelson [13].

APPENDIX E: DOPPLER EFFECTS

When a nuclear reaction occurs, the recoiling excited nucleus is traveling through a surrounding medium and slows down. ^{48}Ti is a light nucleus and therefore, Doppler effects should be investigated for the n+^{48}Ti reaction. The Doppler-shifted energy of a γ ray detected at angle θ with respect to the recoil direction of the nucleus emitting it is given by

$$E_\gamma(\theta) = E_\gamma^0 \left[1 + F(\tau)\beta_0 cos\theta\right], \tag{E1}$$

where E_γ^0 is the γ-ray energy in the rest frame of the recoiling nucleus, the attenuation factor F(τ) varies between 0 and 1 and is a function of the level lifetime τ, β_0 is the initial velocity of the recoiling nucleus, relative to the speed of light, in the lab frame. For reactions in an extended sample, the Doppler shifts must be averaged over different scattering angles. For low-energy (n,n$'\gamma$) reactions and assuming that F(τ) does not depend on the recoil velocity, β_0 in Eq. (E1) must be replaced by β_{CM}, the velocity of the center of mass in the lab frame [32]

$$\beta_{CM} = 0.04635 \left(\frac{A_n}{A_n + A_T}\right)\sqrt{\frac{E_n}{A_n}}, \tag{E2}$$

where A_n is the neutron mass in atomic mass units (1.00866497 u), A_T is the target mass in atomic units (47.9479463 u, for ^{48}Ti), and E_n is the incident neutron energy in MeV. Thus, for example, 2-MeV neutrons incident on ^{48}Ti nuclei will result in $\beta_{CM} = 0.00165$. A 0.983-MeV γ ray produced in this reaction will experience a Doppler shift of at most 1.6 keV (assuming F(τ) = 1 and $\theta = 180°$) which is less than the observed width of 2.2 keV for γ-ray peaks at this energy. For higher-energy neutrons, the situation is more complicated. In order to investigate the potential effects of Doppler shifts in the present data set, attenuation factors $F(\tau)$ have been extracted by fitting individual-detector γ-ray spectra, corresponding to the range $E_n = 1-20$ MeV. Attenuation factors have been inferred for many transitions in the ^{48}Ti$(n, n'\gamma)$ channel by fitting γ-ray energies with Eq. (E1). The resulting $F(\tau)$ values are plotted in Fig. 25. There are no general reliable trends that can be extracted from Fig. 25.

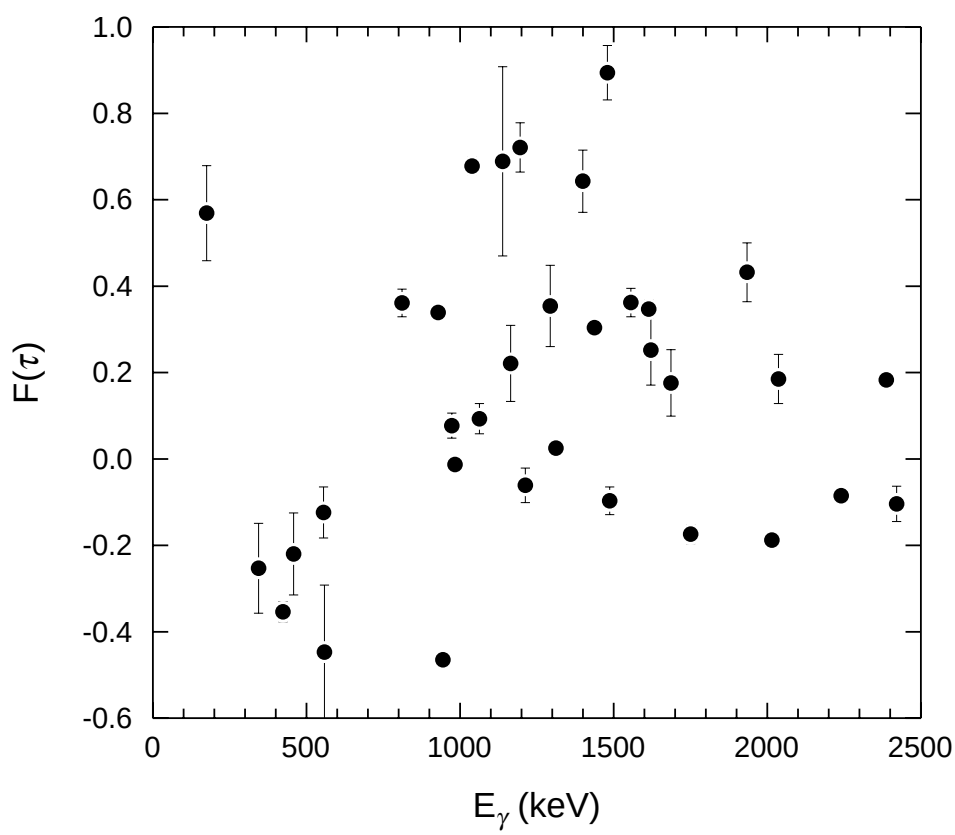

FIG. 25: Plot of $F(\tau)$ values extracted from the analysis of individual detectors, as a function of γ-ray energy.

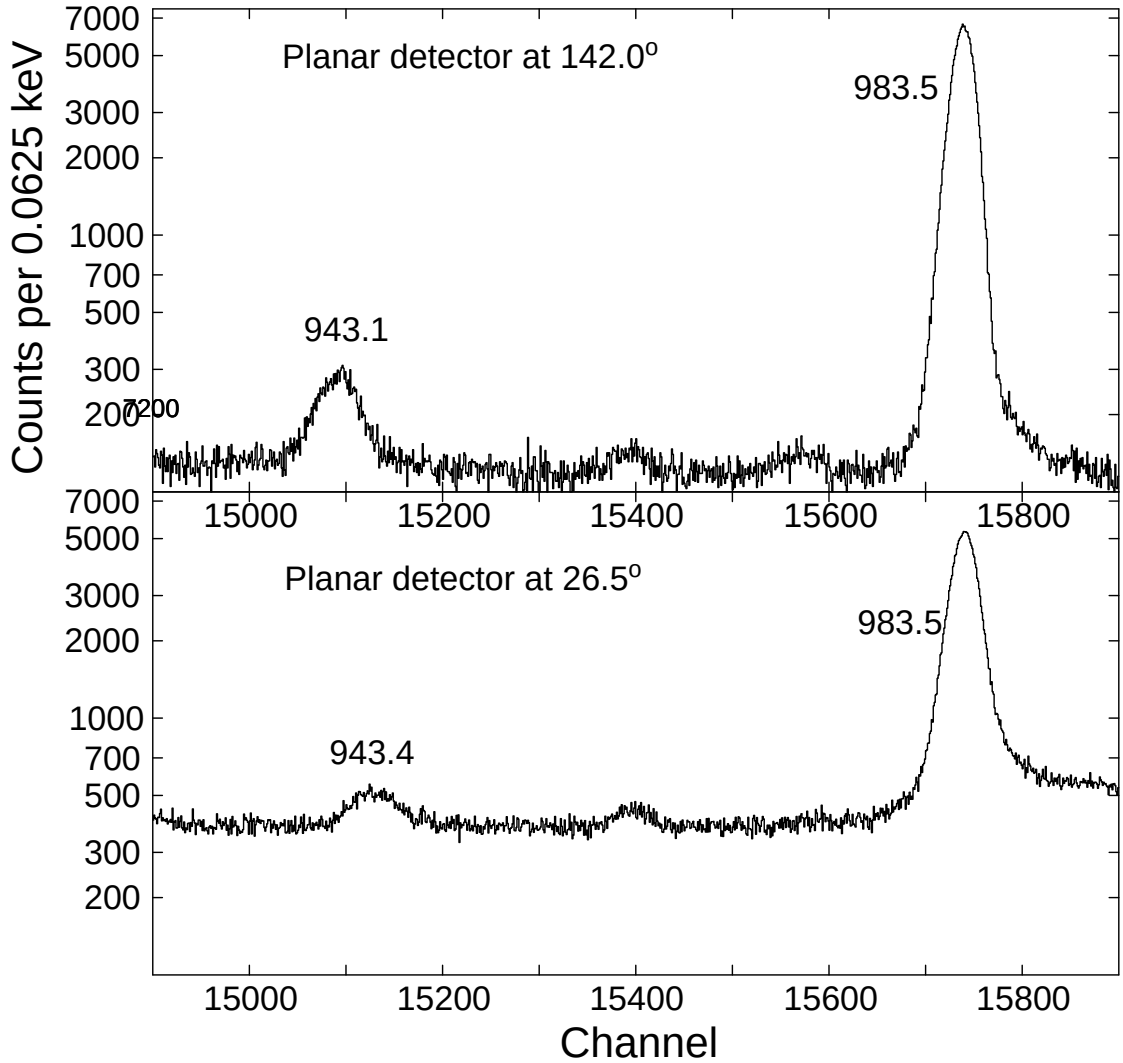

FIG. 26: Part of the individual planar detector spectrum. These spectra are aligned using E_γ=803.06 keV transition from ^{206}Pb, which we assumed no Doppler shifted.

In Fig. 26, part of the spectra from planar detectors at the most forward angle 26.5° and at the most backward angle 142.0° are shown. A γ ray of E_γ=983.5 keV from the 0.983 MeV level, with a level lifetime of 4.27 ps has no Doppler shift, but a γ ray of E_γ=944.0 keV from the 3.239 MeV level (with a level lifetime of 46 fs), a Doppler shift of $\approx$ 0.3 keV is deduced from Fig. 26. Reliable Doppler shifts for individual transitions are very difficult to extract from these data because (i) the spectra are very complex, (ii) only 4 distinct detector angles are available for the planar data, and (iii) the statistics in individual-detector spectra are limited.

The GEANIE data seem to suggest that the attenuation factors for the present experiment are very weak in general, and therefore it is unlikely that Doppler shift will significantly affect the γ-ray analysis.

APPENDIX F: IDENTIFICATION OF GAMMA RAYS

The identification of γ rays in GEANIE data can be complicated due to the large number of open reaction channels. The analysis of threshold energies in the γ-ray excitation functions was helpful in identifying and placing γ rays. Using the $\gamma\gamma$ coincidence matrix built during the data reduction, a tentative level scheme for ^{48}Ti can be constructed. The level scheme constructed from the $\gamma\gamma$ coincidence matrix is shown in Fig. 27. As discussed in Section III, the statistics were considerably lower for coincidence events compared to single-fold events. Due to the low statistics, γ-rays with energy above 3.0 MeV are constructed from single-fold events in Fig. 27. Examples of $\gamma\gamma$ coincidence technique are shown in Fig. 6. In the upper panel, the coincidence spectrum gated on the 175-keV transition between the 3508.5-keV and 3333.2-keV levels gives the transitions which belong to the same cascade as the 175-keV transition. In this case, the coincident transitions are the 890-keV transition from the decay of the 4398.0-keV level to the 3508.5-keV level and subsequent 1038-keV, 1312-keV, and 983.5-keV transitions from the decay of the 3333.2-keV level to the ground state. In the middle panel, the coincidence spectrum gated on the 2238-keV transition between the 3223.9-keV and 983.5-keV levels yields the 811-keV and 972-keV transitions from decays of higher lying levels to the 3223.9-keV level, and the subsequent 983.5-keV transition from the decay of the 983.5-keV level to the ground state. Similarly in the lower panel, the coincidence spectrum gated on the 811-keV transition between the 4035.1-keV and 3223.9-keV levels gives the 929-keV, 983.5-keV, and 1312-keV transitions which can also be placed in the level scheme. The intensities in the level schemes (the thickness of the arrows) are based on the GEANIE data. In general, these intensities are argee with NUDAT. The spin and parity assignments are from the NUDAT [10].

A list of γ rays extracted from the GEANIE data and tentatively assigned to ^{48}Ti is given in Table VII. The corresponding list for γ rays attributed to ^{47}Ti can be found in Table VIII. The corresponding lists for γ rays assigned to ^{48}Sc and ^{45}Ca are given in Tables IX and X. The initial identification in this first step is based on the shape of the excitation functions (plotted in Figs. 28–114). Tables VII–X also give the transition tabulated in NUDAT that likely corresponds to the observed γ ray. In the end, it is unlikely that all the γ rays in Tables VII–X have been correctly identified and are free of contamination. The partial cross sections for these transitions are given explicitly by Tables XII–XCVIII in appendix G.

TABLE VII: Master list of γ rays assigned to ^{48}Ti. Only statistical uncertainties are quoted for the γ-ray energies extracted in the present work and listed in the first column. The detector type (pl for planar, cx for coaxial) is given in the second column. A tentative identification with the NUDAT compilation is made wherever possible in columns 3, 4, and 5. Columns 6 and 7 give the internal conversion coefficient (α) and detector efficiency (ϵ) used in Eq. (7).

E_γ (keV)	Det.	$E_\gamma^{(\mathrm{NUDAT})}$ (keV)	$E_x^{(\mathrm{NUDAT})}$ (keV)	J^π(NUDAT)	α	ϵ
175.420 ± 0.008	pl	175.361(5)	3508.536(13)	6+	0.00459	0.022
344.410 ± 0.046	pl	346	4196.83(3)	1 to 4	0.0000	0.0089
423.631 ± 0.013	pl	423.629(9)	3782.436(16)	3-,4-	0.00069	0.0068
458.045 ± 0.033	cx	458.45(16)	4196.83(3)	1 to 4	0.0000	0.0105
497.121 ± 0.063	cx	496	4196.83(3)	1 to 4	0.0000	0.009855
555.453 ± 0.028	cx	555	4258(2)	1+	0.0000	0.00904
558.368 ± 0.101	cx	558.6	3782.436(16)	3-,4-	0.000	0.00901
811.266 ± 0.028	cx	811.198(18)	4035.115(15)	2+	0.0000	0.00681
888.970 ± 0.102	cx	890	4398(1)	5,6+	0.0000	0.00643
928.278 ± 0.013	cx	928.290(11)	3223.924(11)	3+	0.0000	0.00609
938.004 ± 0.004	cx	938	3358.802(15)	3-	0.0000	0.006006
944.105 ± 0.013	cx	944.104(7)	3239.735(10)	4+	0.0000	0.005993
946.301 ± 0.080	cx	946	4996.7(20)	5-	0.0000	0.005997
972.941 ± 0.018	cx	972.91(3)	4196.83(3)	1 to 4	0.0000	0.005813
983.538 ± 0.005	cx	983.517(5)	983.519(5)	2+	0.000129	0.005811
1037.553 ± 0.010	cx	1037.599(26)	3333.178(14)	6+	0.0000	0.005633
1063.270 ± 0.019	cx	1063.19(5)	3358.802(15)	3-	0.0000	0.005561
1071.130 ± 0.049	cx	1072	4404(2)	5	0.0000	0.005467
1140.841 ± 0.066	cx	1140.94(10)	4757.71(10)	4	0.0000	0.005319
1164.323 ± 0.100	cx	1165	4387.654(18)	2+, 3,4+	0.0000	0.005254

TABLE VII: (Continued.)

E_γ (keV)	Det.	$E_\gamma^{(\mathrm{NUDAT})}$ (keV)	$E_x^{(\mathrm{NUDAT})}$ (keV)	J^π(NUDAT)	α	ϵ
1173.320 ± 0.079	cx	1173	4956(1)	5,6	0.0000	0.005199
1195.671 ± 0.072	cx	1195.83(6)	3616.784(19)	2+	0.0000	0.005024
1212.891 ± 0.045	cx	1212.880(12)	3508.536(13)	6+	0.0000	0.004972
1293.789 ± 0.090	cx	1293.71(6)	4910.55(5)	0- to 4	0.0000	0.004708
1312.073 ± 0.006	cx	1312.096(6)	2295.625(7)	4+	0.0000	0.004687
1317.432 ± 0.163	cx	1320.2	3738.50(11)	1+	0.0000	0.004703
1437.448 ± 0.009	cx	1437.487(11)	2421.023(10)	2+	0.0000	0.004419
1479.329 ± 0.113	cx	1479.339(18)	4719.102(20)	2+,4+	0.0000	0.004314
1486.809 ± 0.029	cx	1486.82(3)	3782.436(16)	3-,4-	0.0000	0.004304
1540.475 ± 0.167	cx	1539.63(18)	4910.55(5)	0- to 4	0.0000	0.004178
1556.059 ± 0.044	cx	1556.57(5)	3852.23(3)	3-	0.0000	0.004070
1614.140 ± 0.037	cx	1614.041(19)	4035.115(15)	2+	0.0000	0.004048
1621.218 ± 0.117	cx	1622	4861(1)	2+,3+,4+	0.0000	0.004059
1686.712 ± 0.090	cx	1686.63(9)	4910.55(5)	0- to 4	0.0000	0.003922
1699.151 ± 0.161	cx	1700.89(16)	4924.86(13)	2+,3+,4+	0.0000	0.003833
1750.441 ± 0.026	cx	1750	4046(1)	5(-)	0.0000	0.003761
1914.024 ± 0.207	cx	1915	5274(2)	2 to 5	0.0000	0.003696
1933.822 ± 0.191	cx	1933.9(3)	5157.65(14)	4+	0.0000	0.003696
2014.607 ± 0.022	cx	2013.66(16)	2997.19(16)	0+	0.0000	0.003696
2036.520 ± 0.146	cx	2036.349(13)	4457.420(11)	3+	0.0000	0.003696
2087.435 ± 0.389	cx	2086	4381(2)	2+ to 5-	0.0000	0.003696
2161.873 ± 0.130	cx	2161.759(14)	4457.420(11)	3+	0.0000	0.003696
2240.306 ± 0.023	cx	2240.375(19)	3223.924(11)	3+	0.0000	0.003696
2285.604 ± 0.456	cx	2285.41(19)	4580.67(6)	3-	0.0000	0.003696
2371.816 ± 2.161	cx	2371.18(8)	4792.25(5)	0+ to 3(-)	0.0000	0.003696
2375.058 ± 0.020	cx	2375.211(19)	3358.802(15)	3-	0.0000	0.003696
2387.530 ± 0.038	cx	2387.249(26)	3370.842(24)	2+	0.0000	0.003696
2421.033 ± 0.067	cx	2420.90(4)	2421.023(10)	2+	0.0000	0.003696
2463.678 ± 0.189	cx	2464	4885(1)	(2+,3+,4+)	0.0000	0.003696
2633.167 ± 0.040	cx	2633.20(3)	3616.784(19)	2+	0.0000	0.003696
2716.216 ± 0.059	cx	2715.81(13)	3699.45(8)	1-	0.0000	0.003696
2754.740 ± 0.150	cx	2756.0(7)	3738.50(11)	1+	0.0000	0.003696
2868.581 ± 0.055	cx	2868.59(4)	3852.23(3)	3-	0.0000	0.003696
3090.605 ± 0.145	cx	3090.82(6)	4074.479(19)	2+	0.0000	0.003696
3328.189 ± 0.351	cx	3328	4311.6(9)	1+	0.0000	0.003696
3371.265 ± 0.379	cx	3370.96(13)	3370.842(24)	2+	0.0000	0.003696
3404.952 ± 0.248	cx	3403.83(7)	4387.654(18)	2+,3,4+	0.0000	0.003696
3597.638 ± 0.284	cx	3596.76(17)	4580.67(6)	3-	0.0000	0.003696
3699.160 ± 0.180	cx	3699.11(12)	3699.45(8)	1-	0.0000	0.003696
3738.027 ± 0.179	cx	3738.35(24)	3738.50(11)	1+	0.0000	0.003696
3807.934 ± 0.551	cx	3808.58(7)	4792.25(5)	0+ to 3(-)	0.0000	0.003696

TABLE VIII: Master list of γ rays assigned to ^{47}Ti. Only statistical uncertainties are quoted for the γ-ray energies extracted in the present work and listed in the first column. The detector type (pl for planar, cx for coaxial) is given in the second column. A tentative identification with the NUDAT compilation is made wherever possible in columns 3, 4, and 5. Columns 6 and 7 give the internal conversion coefficient (α) and detector efficiency (ϵ) used in Eq. (7).

E_γ (keV)	Det.	$E_\gamma^{(\mathrm{NUDAT})}$ (keV)	$E_x^{(\mathrm{NUDAT})}$ (keV)	J^π(NUDAT)	α	ϵ
159.321 ± 0.011	pl	159.377(21)	159.376(12)	7/2-	0.0000	0.02495

TABLE VIII: (Continued.)

E_γ (keV)	Det.	$E_\gamma^{(\mathrm{NUDAT})}$ (keV)	$E_x^{(\mathrm{NUDAT})}$ (keV)	J^π(NUDAT)	α	ϵ
192.319 ± 0.064	pl	192.150(10)	1444.25(4)	11/2-	0.0000	0.01984
243.645 ± 0.103	pl	244.4(5)	1793.9(1)	1/2-	0.0000	0.01442
539.566 ± 0.244	cx	540.0	2364.9(2)	1/2+	0.0000	0.009246
1093.387 ± 0.027	cx	1092.71(5)	1252.10(4)	9/2-	0.0000	0.005435
1147.048 ± 0.141	cx	1151	3515.5(5)	1/2+	0.0000	0.005247
1251.466 ± 0.344	cx	1252.0	1252.10(4)	9/2-	0.0000	0.004827
1284.783 ± 0.025	cx	1284.86(4)	1444.25(4)	11/2-	0.0000	0.004756
1304.583 ± 0.143	cx	1304.61(4)	2748.88(6)	15/2-	0.0000	0.004650
1390.459 ± 0.172	cx	1390.4(4)	1549.8(1)	3/2-	0.0000	0.004479
1430.827 ± 0.097	cx	1430.22(4)	2682.32(5)	11/2(-)	0.0000	0.004360
1549.942 ± 0.151	cx	1549.9(4)	1549.8(1)	3/2-	0.0000	0.004092
1793.342 ± 0.561	cx	1793.9(4)	1793.9(1)	1/2-	0.0000	0.003700
1825.017 ± 0.079	cx	1825	1825.0(1)	3/2+	0.0000	0.003696
2004.085 ± 0.274	cx	2003.1(10)	2163.2(2)	3/2-	0.0000	0.003696
2009.356 ± 0.366	cx	2008(10)	2166.7(2)	5/2	0.0000	0.003696
2259.244 ± 0.320	cx	2259.7	2259.5(2)	5/2+	0.0000	0.003696
2298.205 ± 0.532	cx	2297	2297.1(2)	(5/2-,7/2-)	0.0000	0.003696
2784.599 ± 0.297	cx	2785	2785.1(5)	N/A	0.0000	0.003696
2799.761 ± 0.543	cx	2800	2800.2(10)	N/A	0.0000	0.003696

TABLE IX: Master list of γ rays assigned to ^{48}Sc. Only statistical uncertainties are quoted for the γ-ray energies extracted in the present work and listed in the first column. The detector type (pl for planar, cx for coaxial) is given in the second column. A tentative identification with the NUDAT compilation is made wherever possible in columns 3, 4, and 5. Columns 6 and 7 give the internal conversion coefficient (α) and detector efficiency (ϵ) used in Eq. (7).

E_γ (keV)	Det.	$E_\gamma^{(\mathrm{NUDAT})}$ (keV)	$E_x^{(\mathrm{NUDAT})}$ (keV)	J^π(NUDAT)	α	ϵ
121.503 ± 0.009	pl	121.41(4)	252.35(6)	4+	0.0101	0.03091
131.092 ± 0.010	pl	130.94(4)	130.94(4)	5+	0.008442	0.02971
370.281 ± 0.015	cx	370.29(5)	622.64(8)	3+	0.004974	0.01212
519.938 ± 0.054	cx	519.9(2)	1142.58(16)	2+	0.0000	0.009461
779.100 ± 0.054	cx	779.0(2)	1401.70(16)	2-	0.0000	0.006988

TABLE X: Master list of γ rays assigned to ^{45}Ca. Only statistical uncertainties are quoted for the γ-ray energies extracted in the present work and listed in the first column. The detector type (pl for planar, cx for coaxial) is given in the second column. A tentative identification with the NUDAT compilation is made wherever possible in columns 3, 4, and 5. Columns 6 and 7 give the internal conversion coefficient (α) and detector efficiency (ϵ) used in Eq. (7).

E_γ (keV)	Det.	$E_\gamma^{(\mathrm{NUDAT})}$ (keV)	$E_x^{(\mathrm{NUDAT})}$ (keV)	J^π(NUDAT)	α	ϵ
174.424 ± 0.019	pl	174.276(24)	174.266(24)	5/2-	0.0000	0.02227

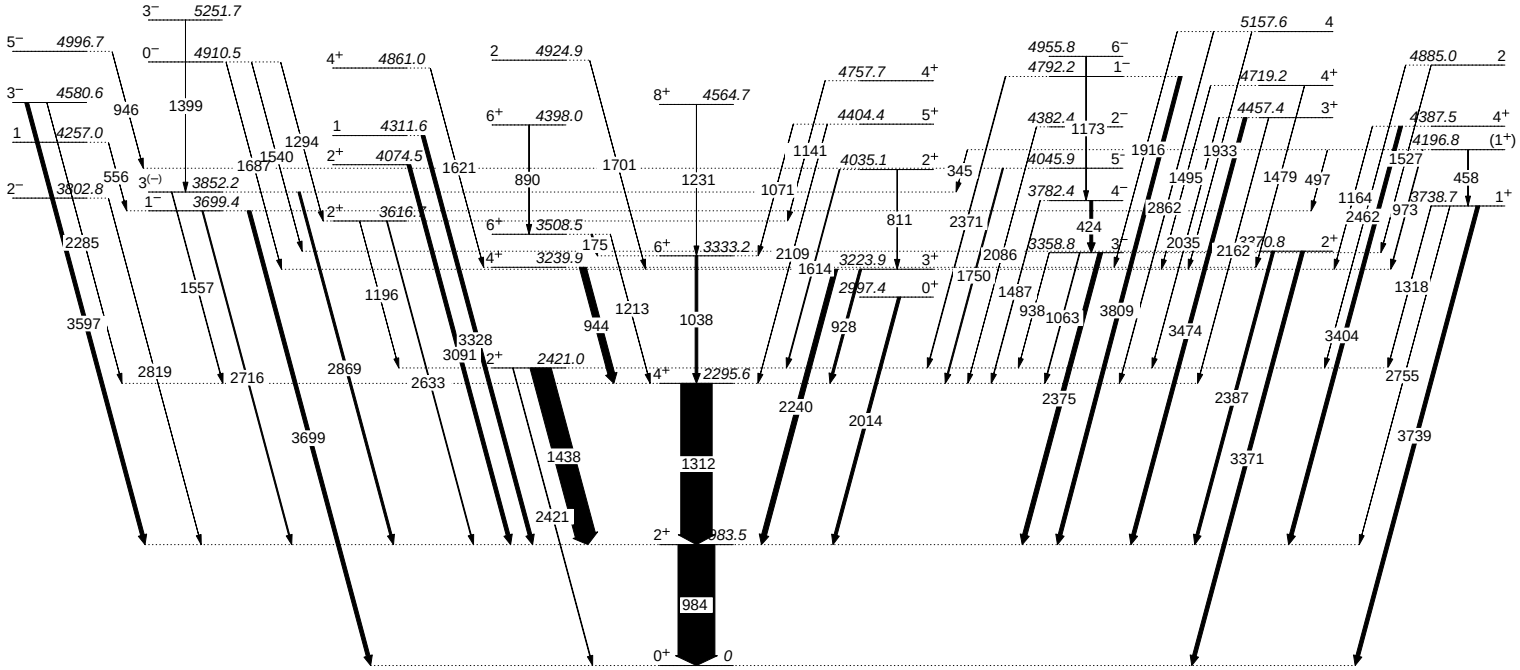

FIG. 27: Partial level scheme for ^{48}Ti from the inelastic channel.

APPENDIX G: TABLES OF PARTIAL CROSS SECTIONS

TABLE XI: Systematic uncertainties used in Tables XII-XCVIII to calculate the total error. The quantities in the first column are defined in Eq. (7) with the subscripts *pl* and *cx* denoting planar and coaxial detectors, respectively. The relative uncertainty is listed in the second column, and a brief description of how the uncertainty was determined is given in the third column.

Quantity	Uncertainty (%)	Origin
a_s	0	unknown, but assumed small
ϵ_{fc}	0.42	ref. [3]
$f_{pl},\ f_{cx}$	3.0	ref. [3]
α_γ	6.0	ref. [3]
ϵ_{pl}	4.8	calculated average of individual detector efficiencies
ϵ_{cx}	4.8	calculated average of individual detector efficiencies

TABLE XII: Measured partial cross section for the E_γ = 175.3–keV transition in ^{48}Ti, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	171	39	0.0005	0.0001	0.0001	2.719	0.039	72	45	0.0002	0.0001	0.0001
1.031	0.010	203	39	0.0007	0.0002	0.0002	2.815	0.041	91	46	0.0003	0.0001	0.0001
1.053	0.009	238	38	0.0009	0.0002	0.0002	2.913	0.043	110	48	0.0003	0.0001	0.0001
1.075	0.010	182	37	0.0008	0.0002	0.0002	3.019	0.045	151	50	0.0004	0.0001	0.0001
1.100	0.010	221	37	0.0009	0.0002	0.0002	3.127	0.048	119	53	0.0003	0.0001	0.0001
1.122	0.009	172	37	0.0006	0.0001	0.0001	3.245	0.052	135	56	0.0004	0.0002	0.0002
1.148	0.011	144	36	0.0005	0.0001	0.0002	3.367	0.053	138	56	0.0004	0.0001	0.0002
1.174	0.011	164	37	0.0005	0.0001	0.0001	3.498	0.056	123	57	0.0003	0.0001	0.0002
1.198	0.012	186	38	0.0006	0.0001	0.0002	3.636	0.061	288	59	0.0008	0.0002	0.0002
1.227	0.012	182	38	0.0006	0.0001	0.0002	3.782	0.064	251	57	0.0006	0.0001	0.0002
1.256	0.012	208	40	0.0006	0.0001	0.0002	3.937	0.068	567	59	0.0015	0.0002	0.0002
1.285	0.012	144	41	0.0004	0.0001	0.0001	4.103	0.073	907	62	0.0024	0.0002	0.0003
1.314	0.013	194	41	0.0006	0.0001	0.0001	4.279	0.076	1528	69	0.0037	0.0002	0.0005
1.346	0.014	283	40	0.0009	0.0001	0.0002	4.464	0.082	2093	75	0.0052	0.0002	0.0006
1.378	0.014	175	39	0.0006	0.0001	0.0001	4.665	0.088	2658	77	0.0067	0.0002	0.0008
1.412	0.014	209	41	0.0007	0.0001	0.0002	4.879	0.094	2905	79	0.0072	0.0002	0.0008
1.447	0.015	137	40	0.0004	0.0001	0.0001	5.108	0.100	3344	83	0.0080	0.0003	0.0009
1.483	0.016	139	40	0.0004	0.0001	0.0001	5.350	0.107	4636	92	0.0112	0.0003	0.0013
1.522	0.016	130	40	0.0004	0.0001	0.0001	5.617	0.116	5693	99	0.0141	0.0004	0.0016
1.560	0.017	186	42	0.0006	0.0001	0.0001	5.899	0.124	6859	107	0.0166	0.0004	0.0019
1.601	0.017	88	40	0.0003	0.0001	0.0001	6.205	0.135	7705	110	0.0187	0.0004	0.0021
1.642	0.018	147	41	0.0005	0.0001	0.0001	6.532	0.145	8970	120	0.0216	0.0005	0.0024
1.687	0.019	154	40	0.0005	0.0001	0.0001	6.891	0.158	10480	127	0.0260	0.0005	0.0029
1.733	0.020	109	39	0.0003	0.0001	0.0001	7.281	0.171	11970	135	0.0290	0.0006	0.0032
1.780	0.020	106	41	0.0003	0.0001	0.0001	7.695	0.186	13660	142	0.0335	0.0006	0.0037
1.830	0.021	198	44	0.0006	0.0001	0.0001	8.158	0.205	14590	146	0.0372	0.0007	0.0041
1.882	0.023	130	43	0.0004	0.0001	0.0001	8.658	0.223	15480	150	0.0394	0.0007	0.0044
1.935	0.023	98	43	0.0003	0.0001	0.0001	9.203	0.243	16590	154	0.0433	0.0008	0.0048
1.991	0.024	152	42	0.0004	0.0001	0.0001	9.809	0.270	17330	157	0.0475	0.0009	0.0053
2.050	0.026	154	42	0.0005	0.0001	0.0001	10.467	0.297	18520	162	0.0531	0.0010	0.0059

TABLE XII: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
2.112	0.027	71	41	0.0002	0.0001	0.0001	11.208	0.326	19450	165	0.0582	0.0011	0.0065
2.176	0.028	107	42	0.0003	0.0001	0.0001	12.019	0.366	19320	166	0.0612	0.0012	0.0068
2.243	0.029	140	42	0.0004	0.0001	0.0001	12.933	0.403	17910	161	0.0587	0.0012	0.0066
2.313	0.031	138	42	0.0004	0.0001	0.0001	13.961	0.457	14420	148	0.0484	0.0010	0.0054
2.387	0.031	39	41	0.0001	0.0001	0.0001	15.094	0.512	10260	131	0.0345	0.0007	0.0039
2.463	0.034	177	44	0.0005	0.0001	0.0001	16.403	0.589	7138	115	0.0245	0.0006	0.0028
2.546	0.035	174	46	0.0005	0.0001	0.0001	17.862	0.685	4889	102	0.0166	0.0004	0.0019
2.631	0.037	119	46	0.0003	0.0001	0.0001	19.551	0.691	3745	94	0.0106	0.0003	0.0012

TABLE XIII: Measured partial cross section for the $E_\gamma = 344.2$–keV transition in ^{48}Ti, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	2	29	0.0000	0.0003	0.0003	2.815	0.041	98	39	0.0007	0.0003	0.0003
1.053	0.009	70	29	0.0006	0.0003	0.0003	2.913	0.043	52	39	0.0004	0.0003	0.0003
1.075	0.010	18	28	0.0002	0.0003	0.0003	3.019	0.045	4	36	0.0000	0.0002	0.0002
1.100	0.010	34	27	0.0003	0.0003	0.0003	3.127	0.048	0	1	0.0000	0.0000	0.0000
1.122	0.009	73	28	0.0006	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	1	14	0.0000	0.0001	0.0001	3.367	0.053	0	12	0.0000	0.0000	0.0000
1.174	0.011	36	28	0.0003	0.0002	0.0002	3.498	0.056	35	49	0.0002	0.0003	0.0003
1.198	0.012	48	29	0.0004	0.0002	0.0002	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	76	30	0.0006	0.0003	0.0003	3.782	0.064	35	48	0.0002	0.0003	0.0003
1.256	0.012	21	30	0.0002	0.0002	0.0002	3.937	0.068	47	46	0.0003	0.0003	0.0003
1.285	0.012	36	33	0.0002	0.0002	0.0002	4.103	0.073	0	1	0.0000	0.0000	0.0000
1.314	0.013	10	33	0.0001	0.0002	0.0002	4.279	0.076	82	49	0.0005	0.0003	0.0003
1.346	0.014	64	31	0.0005	0.0002	0.0002	4.464	0.082	270	50	0.0017	0.0003	0.0004
1.378	0.014	14	30	0.0001	0.0002	0.0002	4.665	0.088	456	51	0.0028	0.0003	0.0004
1.412	0.014	11	31	0.0001	0.0003	0.0003	4.879	0.094	460	52	0.0028	0.0003	0.0004
1.447	0.015	54	31	0.0004	0.0002	0.0002	5.108	0.100	477	53	0.0028	0.0003	0.0004
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	448	53	0.0027	0.0003	0.0004
1.522	0.016	50	31	0.0004	0.0002	0.0002	5.617	0.116	468	54	0.0029	0.0003	0.0005
1.560	0.017	52	32	0.0004	0.0002	0.0002	5.899	0.124	592	55	0.0035	0.0003	0.0005
1.601	0.017	43	32	0.0003	0.0002	0.0003	6.205	0.135	472	53	0.0028	0.0003	0.0004
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	395	52	0.0024	0.0003	0.0004
1.687	0.019	60	31	0.0005	0.0002	0.0003	6.891	0.158	363	53	0.0022	0.0003	0.0004
1.733	0.020	110	32	0.0009	0.0002	0.0003	7.281	0.171	439	55	0.0026	0.0003	0.0004
1.780	0.020	55	34	0.0004	0.0002	0.0003	7.695	0.186	399	55	0.0024	0.0003	0.0004
1.830	0.021	76	35	0.0005	0.0002	0.0003	8.158	0.205	437	55	0.0027	0.0003	0.0005
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	316	53	0.0020	0.0003	0.0004
1.935	0.023	62	35	0.0004	0.0002	0.0002	9.203	0.243	323	53	0.0021	0.0003	0.0004
1.991	0.024	61	34	0.0004	0.0002	0.0002	9.809	0.270	445	54	0.0030	0.0004	0.0005
2.050	0.026	11	33	0.0001	0.0002	0.0002	10.467	0.297	205	51	0.0014	0.0004	0.0004
2.112	0.027	71	35	0.0005	0.0003	0.0003	11.208	0.326	330	52	0.0024	0.0004	0.0005
2.176	0.028	3	31	0.0000	0.0002	0.0002	12.019	0.366	145	49	0.0011	0.0004	0.0004
2.243	0.029	40	33	0.0003	0.0002	0.0002	12.933	0.403	215	49	0.0017	0.0004	0.0004

TABLE XIII: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	163	47	0.0014	0.0004	0.0004
2.387	0.031	49	34	0.0003	0.0002	0.0002	15.094	0.512	188	46	0.0016	0.0004	0.0004
2.463	0.034	21	34	0.0002	0.0002	0.0002	16.403	0.589	50	43	0.0004	0.0004	0.0004
2.546	0.035	48	37	0.0003	0.0003	0.0003	17.862	0.685	37	43	0.0003	0.0004	0.0004
2.631	0.037	87	38	0.0006	0.0003	0.0003	19.551	0.691	88	44	0.0006	0.0003	0.0003

TABLE XIV: Measured partial cross section for the E_γ = 423.6–keV transition in ^{48}Ti, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	43	31	0.0004	0.0003	0.0003	2.719	0.039	41	36	0.0004	0.0003	0.0003
1.031	0.010	27	30	0.0003	0.0003	0.0003	2.815	0.041	40	37	0.0004	0.0003	0.0003
1.053	0.009	23	29	0.0003	0.0003	0.0004	2.913	0.043	4	37	0.0000	0.0003	0.0003
1.075	0.010	48	28	0.0007	0.0004	0.0004	3.019	0.045	76	41	0.0007	0.0004	0.0004
1.100	0.010	0	0	0.0000	0.0000	0.0000	3.127	0.048	1	17	0.0000	0.0001	0.0001
1.122	0.009	24	27	0.0003	0.0003	0.0003	3.245	0.052	86	47	0.0008	0.0004	0.0004
1.148	0.011	15	24	0.0002	0.0003	0.0003	3.367	0.053	101	48	0.0009	0.0004	0.0004
1.174	0.011	20	28	0.0002	0.0003	0.0003	3.498	0.056	76	48	0.0006	0.0004	0.0004
1.198	0.012	30	29	0.0003	0.0003	0.0003	3.636	0.061	60	49	0.0005	0.0004	0.0004
1.227	0.012	27	29	0.0003	0.0003	0.0003	3.782	0.064	111	48	0.0009	0.0004	0.0004
1.256	0.012	42	31	0.0004	0.0003	0.0003	3.937	0.068	991	56	0.0083	0.0005	0.0010
1.285	0.012	98	35	0.0009	0.0003	0.0003	4.103	0.073	1444	61	0.0123	0.0006	0.0015
1.314	0.013	26	34	0.0002	0.0003	0.0003	4.279	0.076	1876	66	0.0149	0.0006	0.0017
1.346	0.014	47	31	0.0005	0.0003	0.0003	4.464	0.082	2202	67	0.0177	0.0007	0.0021
1.378	0.014	85	31	0.0009	0.0003	0.0003	4.665	0.088	2178	67	0.0177	0.0007	0.0021
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	2234	68	0.0178	0.0007	0.0021
1.447	0.015	89	32	0.0009	0.0003	0.0003	5.108	0.100	2342	70	0.0182	0.0007	0.0021
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	2434	70	0.0191	0.0007	0.0022
1.522	0.016	62	31	0.0006	0.0003	0.0003	5.617	0.116	2609	72	0.0209	0.0007	0.0024
1.560	0.017	0	1	0.0000	0.0000	0.0000	5.899	0.124	2794	73	0.0219	0.0007	0.0025
1.601	0.017	82	32	0.0008	0.0003	0.0003	6.205	0.135	3212	76	0.0252	0.0008	0.0029
1.642	0.018	22	31	0.0002	0.0003	0.0003	6.532	0.145	3288	77	0.0257	0.0007	0.0029
1.687	0.019	4	28	0.0000	0.0003	0.0003	6.891	0.158	3136	76	0.0251	0.0007	0.0029
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	3271	78	0.0257	0.0007	0.0029
1.780	0.020	5	32	0.0000	0.0003	0.0003	7.695	0.186	3533	80	0.0281	0.0008	0.0032
1.830	0.021	64	34	0.0006	0.0003	0.0003	8.158	0.205	3520	80	0.0290	0.0008	0.0033
1.882	0.023	23	35	0.0002	0.0003	0.0003	8.658	0.223	3647	81	0.0300	0.0008	0.0034
1.935	0.023	84	35	0.0008	0.0003	0.0003	9.203	0.243	3473	79	0.0294	0.0008	0.0033
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	3368	78	0.0299	0.0008	0.0034
2.050	0.026	35	33	0.0003	0.0003	0.0003	10.467	0.297	3240	76	0.0300	0.0009	0.0034
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	3184	76	0.0308	0.0009	0.0035
2.176	0.028	15	33	0.0001	0.0003	0.0003	12.019	0.366	3187	75	0.0327	0.0010	0.0037
2.243	0.029	21	32	0.0002	0.0003	0.0003	12.933	0.403	2848	72	0.0302	0.0009	0.0034
2.313	0.031	43	32	0.0004	0.0003	0.0003	13.961	0.457	2129	65	0.0231	0.0008	0.0027
2.387	0.031	39	34	0.0003	0.0003	0.0003	15.094	0.512	1497	58	0.0163	0.0007	0.0019
2.463	0.034	2	33	0.0000	0.0003	0.0003	16.403	0.589	1063	53	0.0118	0.0006	0.0014

TABLE XIV: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
2.546	0.035	19	36	0.0002	0.0003	0.0003	17.862	0.685	805	50	0.0088	0.0006	0.0011
2.631	0.037	80	37	0.0007	0.0003	0.0003	19.551	0.691	730	50	0.0067	0.0005	0.0009

TABLE XV: Measured partial cross section for the E_γ = 458.0–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	398	28	0.0021	0.0003	0.0004	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	399	29	0.0027	0.0004	0.0005	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	376	29	0.0027	0.0004	0.0005	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	358	29	0.0029	0.0004	0.0005	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	276	28	0.0020	0.0003	0.0004	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	306	30	0.0019	0.0003	0.0003	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	231	29	0.0016	0.0003	0.0003	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	320	32	0.0018	0.0002	0.0003	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	272	31	0.0017	0.0002	0.0003	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	257	33	0.0017	0.0003	0.0003	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	283	36	0.0017	0.0003	0.0003	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	162	36	0.0008	0.0002	0.0002	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	166	36	0.0009	0.0002	0.0002	4.279	0.076	87	53	0.0004	0.0002	0.0003
1.346	0.014	157	35	0.0009	0.0002	0.0002	4.464	0.082	439	56	0.0021	0.0003	0.0003
1.378	0.014	153	35	0.0009	0.0002	0.0002	4.665	0.088	898	61	0.0043	0.0003	0.0006
1.412	0.014	70	35	0.0004	0.0002	0.0002	4.879	0.094	858	61	0.0040	0.0003	0.0005
1.447	0.015	50	35	0.0003	0.0002	0.0002	5.108	0.100	996	63	0.0046	0.0003	0.0006
1.483	0.016	97	35	0.0006	0.0002	0.0002	5.350	0.107	1008	64	0.0047	0.0003	0.0006
1.522	0.016	77	35	0.0005	0.0002	0.0002	5.617	0.116	1106	66	0.0052	0.0003	0.0006
1.560	0.017	63	36	0.0004	0.0002	0.0002	5.899	0.124	1139	66	0.0053	0.0003	0.0006
1.601	0.017	55	37	0.0003	0.0002	0.0002	6.205	0.135	894	63	0.0041	0.0003	0.0005
1.642	0.018	61	37	0.0004	0.0002	0.0002	6.532	0.145	893	63	0.0041	0.0003	0.0005
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	992	65	0.0047	0.0003	0.0006
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	879	65	0.0041	0.0003	0.0005
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	857	65	0.0040	0.0003	0.0005
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	970	66	0.0047	0.0003	0.0006
1.882	0.023	74	41	0.0004	0.0002	0.0002	8.658	0.223	788	64	0.0038	0.0003	0.0005
1.935	0.023	46	39	0.0002	0.0002	0.0002	9.203	0.243	663	62	0.0033	0.0003	0.0005
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	709	62	0.0037	0.0003	0.0005
2.050	0.026	0	2	0.0000	0.0000	0.0000	10.467	0.297	682	61	0.0037	0.0003	0.0005
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	513	59	0.0029	0.0003	0.0005
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	537	58	0.0032	0.0004	0.0005
2.243	0.029	1	17	0.0000	0.0001	0.0001	12.933	0.403	463	56	0.0029	0.0004	0.0005
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	392	52	0.0025	0.0003	0.0004
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	311	50	0.0020	0.0003	0.0004
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	350	49	0.0023	0.0003	0.0004
2.546	0.035	1	13	0.0000	0.0001	0.0001	17.862	0.685	241	48	0.0016	0.0003	0.0004
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	292	49	0.0016	0.0003	0.0003

TABLE XVI: Measured partial cross section for the E_γ = 497.1–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	215	27	0.0012	0.0002	0.0002	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	191	27	0.0014	0.0003	0.0003	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	129	26	0.0010	0.0002	0.0003	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	195	28	0.0017	0.0003	0.0004	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	140	27	0.0011	0.0002	0.0003	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	114	27	0.0007	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	77	27	0.0006	0.0002	0.0002	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	156	30	0.0009	0.0002	0.0002	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	113	30	0.0008	0.0002	0.0002	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	149	31	0.0010	0.0002	0.0003	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	43	32	0.0003	0.0002	0.0002	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	52	35	0.0003	0.0002	0.0002	4.103	0.073	5	50	0.0000	0.0003	0.0003
1.314	0.013	14	34	0.0001	0.0002	0.0002	4.279	0.076	63	52	0.0003	0.0003	0.0003
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	382	55	0.0019	0.0003	0.0003
1.378	0.014	24	32	0.0002	0.0002	0.0002	4.665	0.088	565	57	0.0029	0.0003	0.0004
1.412	0.014	65	35	0.0004	0.0002	0.0002	4.879	0.094	539	57	0.0027	0.0003	0.0004
1.447	0.015	6	34	0.0000	0.0002	0.0002	5.108	0.100	627	59	0.0031	0.0003	0.0004
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	721	60	0.0036	0.0003	0.0005
1.522	0.016	29	34	0.0002	0.0002	0.0002	5.617	0.116	735	62	0.0037	0.0003	0.0005
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	646	61	0.0032	0.0003	0.0005
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	743	61	0.0037	0.0003	0.0005
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	664	61	0.0033	0.0003	0.0005
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	660	61	0.0033	0.0003	0.0005
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	536	62	0.0026	0.0003	0.0004
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	626	63	0.0031	0.0003	0.0005
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	559	62	0.0029	0.0003	0.0004
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	417	60	0.0022	0.0003	0.0004
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	427	60	0.0023	0.0003	0.0004
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	477	60	0.0027	0.0003	0.0004
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	353	58	0.0021	0.0003	0.0004
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	361	58	0.0022	0.0004	0.0004
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	341	56	0.0022	0.0004	0.0004
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	337	54	0.0022	0.0004	0.0004
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	108	49	0.0007	0.0003	0.0003
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	198	48	0.0014	0.0003	0.0004
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	149	46	0.0010	0.0003	0.0003
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	128	46	0.0009	0.0003	0.0003
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	138	47	0.0008	0.0003	0.0003

TABLE XVII: Measured partial cross section for the $E_\gamma = 555.4$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	499	26	0.0030	0.0004	0.0005	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	448	25	0.0035	0.0005	0.0006	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	413	26	0.0034	0.0005	0.0006	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	422	27	0.0040	0.0006	0.0007	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	355	26	0.0031	0.0004	0.0005	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	343	27	0.0025	0.0003	0.0004	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	324	27	0.0026	0.0003	0.0004	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	298	28	0.0020	0.0002	0.0003	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	380	30	0.0028	0.0003	0.0004	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	325	31	0.0025	0.0003	0.0004	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	289	33	0.0020	0.0003	0.0003	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	230	35	0.0014	0.0002	0.0003	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	225	35	0.0015	0.0002	0.0003	4.279	0.076	151	52	0.0008	0.0003	0.0003
1.346	0.014	175	33	0.0012	0.0002	0.0003	4.464	0.082	1137	62	0.0063	0.0004	0.0008
1.378	0.014	122	32	0.0009	0.0002	0.0002	4.665	0.088	1246	62	0.0069	0.0004	0.0008
1.412	0.014	147	34	0.0011	0.0003	0.0003	4.879	0.094	1465	65	0.0080	0.0004	0.0009
1.447	0.015	81	33	0.0006	0.0002	0.0002	5.108	0.100	1610	67	0.0086	0.0004	0.0010
1.483	0.016	62	33	0.0004	0.0002	0.0002	5.350	0.107	1980	70	0.0106	0.0004	0.0012
1.522	0.016	116	34	0.0008	0.0002	0.0003	5.617	0.116	1837	70	0.0101	0.0004	0.0012
1.560	0.017	81	34	0.0005	0.0002	0.0002	5.899	0.124	1616	68	0.0087	0.0004	0.0010
1.601	0.017	39	35	0.0003	0.0002	0.0002	6.205	0.135	1778	69	0.0096	0.0004	0.0011
1.642	0.018	82	35	0.0006	0.0003	0.0003	6.532	0.145	1254	64	0.0067	0.0004	0.0008
1.687	0.019	65	34	0.0005	0.0002	0.0002	6.891	0.158	1216	65	0.0067	0.0004	0.0008
1.733	0.020	86	34	0.0006	0.0002	0.0002	7.281	0.171	960	63	0.0052	0.0003	0.0007
1.780	0.020	47	36	0.0003	0.0002	0.0002	7.695	0.186	940	63	0.0051	0.0004	0.0007
1.830	0.021	14	36	0.0001	0.0002	0.0002	8.158	0.205	715	61	0.0040	0.0004	0.0006
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	542	59	0.0031	0.0003	0.0005
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	514	58	0.0030	0.0003	0.0005
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	512	57	0.0031	0.0004	0.0005
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	422	56	0.0027	0.0004	0.0005
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	385	55	0.0026	0.0004	0.0005
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	339	53	0.0024	0.0004	0.0005
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	370	52	0.0027	0.0004	0.0005
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	94	46	0.0007	0.0003	0.0004
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	174	45	0.0013	0.0003	0.0004
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	64	42	0.0005	0.0003	0.0003
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	156	43	0.0012	0.0003	0.0003
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	171	44	0.0011	0.0003	0.0003

TABLE XVIII: Measured partial cross section for the $E_\gamma = 558.3$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	575	27	0.0035	0.0005	0.0006	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	511	26	0.0040	0.0006	0.0007	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	449	26	0.0037	0.0005	0.0006	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	461	27	0.0044	0.0006	0.0008	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	400	27	0.0034	0.0004	0.0006	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	465	29	0.0033	0.0004	0.0005	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	356	28	0.0029	0.0004	0.0005	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	325	29	0.0021	0.0003	0.0003	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	319	30	0.0024	0.0003	0.0004	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	275	31	0.0021	0.0003	0.0004	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	248	33	0.0017	0.0003	0.0003	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	89	36	0.0005	0.0002	0.0002	4.103	0.073	10	48	0.0001	0.0003	0.0003
1.314	0.013	104	36	0.0007	0.0002	0.0003	4.279	0.076	13	50	0.0001	0.0003	0.0003
1.346	0.014	86	33	0.0006	0.0002	0.0002	4.464	0.082	144	51	0.0008	0.0003	0.0003
1.378	0.014	47	31	0.0003	0.0002	0.0002	4.665	0.088	111	51	0.0006	0.0003	0.0003
1.412	0.014	24	34	0.0002	0.0002	0.0002	4.879	0.094	116	52	0.0006	0.0003	0.0003
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	19	51	0.0001	0.0003	0.0003
1.483	0.016	0	1	0.0000	0.0000	0.0000	5.350	0.107	174	54	0.0009	0.0003	0.0003
1.522	0.016	29	34	0.0002	0.0002	0.0002	5.617	0.116	115	55	0.0006	0.0003	0.0003
1.560	0.017	2	25	0.0000	0.0002	0.0002	5.899	0.124	105	54	0.0006	0.0003	0.0003
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	245	55	0.0013	0.0003	0.0003
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	316	56	0.0017	0.0003	0.0004
1.687	0.019	5	33	0.0000	0.0002	0.0002	6.891	0.158	280	56	0.0015	0.0003	0.0004
1.733	0.020	46	34	0.0003	0.0002	0.0002	7.281	0.171	312	57	0.0017	0.0003	0.0004
1.780	0.020	35	37	0.0002	0.0002	0.0002	7.695	0.186	230	56	0.0013	0.0003	0.0003
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	109	55	0.0006	0.0003	0.0003
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	237	56	0.0013	0.0003	0.0003
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	143	54	0.0008	0.0003	0.0003
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	212	54	0.0013	0.0003	0.0004
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	120	52	0.0008	0.0003	0.0003
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	173	52	0.0012	0.0003	0.0004
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	278	53	0.0020	0.0004	0.0004
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	91	49	0.0007	0.0004	0.0004
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	191	47	0.0014	0.0004	0.0004
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	111	44	0.0008	0.0003	0.0003
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	21	41	0.0002	0.0003	0.0003
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	58	42	0.0004	0.0003	0.0003
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	25	42	0.0002	0.0003	0.0003

TABLE XIX: Measured partial cross section for the E_γ = 811.2–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	0	1	0.0000	0.0000	0.0000
1.031	0.010	0	2	0.0000	0.0000	0.0000	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	0	1	0.0000	0.0000	0.0000
1.075	0.010	0	3	0.0000	0.0000	0.0000	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	1	6	0.0000	0.0001	0.0001	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	30	23	0.0003	0.0002	0.0002	3.245	0.052	26	50	0.0002	0.0004	0.0004
1.148	0.011	0	1	0.0000	0.0000	0.0000	3.367	0.053	25	52	0.0002	0.0004	0.0004
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	81	53	0.0006	0.0004	0.0004
1.198	0.012	18	25	0.0002	0.0002	0.0002	3.636	0.061	21	54	0.0002	0.0004	0.0004
1.227	0.012	23	25	0.0002	0.0003	0.0003	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	7	29	0.0001	0.0003	0.0003	3.937	0.068	1	29	0.0000	0.0002	0.0002
1.285	0.012	0	1	0.0000	0.0000	0.0000	4.103	0.073	429	57	0.0033	0.0004	0.0006
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	1640	71	0.0118	0.0006	0.0014
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	1694	71	0.0124	0.0006	0.0014
1.378	0.014	0	4	0.0000	0.0000	0.0000	4.665	0.088	1871	74	0.0138	0.0006	0.0016
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	1657	72	0.0120	0.0006	0.0014
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	1846	74	0.0130	0.0006	0.0015
1.483	0.016	8	31	0.0001	0.0003	0.0003	5.350	0.107	2009	76	0.0143	0.0006	0.0017
1.522	0.016	2	31	0.0000	0.0003	0.0003	5.617	0.116	1896	76	0.0138	0.0006	0.0016
1.560	0.017	7	30	0.0001	0.0003	0.0003	5.899	0.124	1620	74	0.0115	0.0006	0.0014
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	1495	73	0.0107	0.0006	0.0013
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	1550	73	0.0110	0.0006	0.0013
1.687	0.019	61	33	0.0006	0.0003	0.0003	6.891	0.158	1352	72	0.0099	0.0005	0.0012
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	981	70	0.0070	0.0005	0.0009
1.780	0.020	2	36	0.0000	0.0003	0.0003	7.695	0.186	968	71	0.0070	0.0005	0.0009
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	779	68	0.0058	0.0005	0.0008
1.882	0.023	0	4	0.0000	0.0000	0.0000	8.658	0.223	738	67	0.0055	0.0005	0.0008
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	851	67	0.0065	0.0005	0.0009
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	735	66	0.0059	0.0005	0.0008
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	636	64	0.0054	0.0005	0.0008
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	413	61	0.0036	0.0005	0.0007
2.176	0.028	19	37	0.0002	0.0003	0.0003	12.019	0.366	396	60	0.0037	0.0006	0.0007
2.243	0.029	14	36	0.0001	0.0003	0.0003	12.933	0.403	310	56	0.0030	0.0005	0.0006
2.313	0.031	40	37	0.0003	0.0003	0.0003	13.961	0.457	192	51	0.0019	0.0005	0.0005
2.387	0.031	0	2	0.0000	0.0000	0.0000	15.094	0.512	9	47	0.0001	0.0005	0.0005
2.463	0.034	0	3	0.0000	0.0000	0.0000	16.403	0.589	13	44	0.0001	0.0004	0.0004
2.546	0.035	67	43	0.0006	0.0004	0.0004	17.862	0.685	0	0	0.0000	0.0000	0.0000
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	0	0	0.0000	0.0000	0.0000

TABLE XX: Measured partial cross section for the E_γ = 888.9–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	488	23	0.0042	0.0006	0.0007	2.719	0.039	284	67	0.0025	0.0006	0.0007
1.031	0.010	461	25	0.0051	0.0007	0.0009	2.815	0.041	449	69	0.0039	0.0006	0.0007
1.053	0.009	396	24	0.0046	0.0006	0.0008	2.913	0.043	482	70	0.0041	0.0006	0.0008
1.075	0.010	445	28	0.0059	0.0008	0.0010	3.019	0.045	578	74	0.0048	0.0006	0.0008
1.100	0.010	407	29	0.0049	0.0006	0.0008	3.127	0.048	661	79	0.0055	0.0007	0.0009
1.122	0.009	350	30	0.0035	0.0004	0.0006	3.245	0.052	847	82	0.0072	0.0007	0.0011
1.148	0.011	348	30	0.0040	0.0005	0.0007	3.367	0.053	1058	88	0.0088	0.0008	0.0012
1.174	0.011	338	32	0.0031	0.0004	0.0005	3.498	0.056	1164	90	0.0095	0.0008	0.0013
1.198	0.012	381	32	0.0040	0.0005	0.0006	3.636	0.061	1219	92	0.0100	0.0008	0.0013
1.227	0.012	266	32	0.0028	0.0004	0.0005	3.782	0.064	956	88	0.0076	0.0007	0.0011
1.256	0.012	291	37	0.0028	0.0004	0.0005	3.937	0.068	673	83	0.0054	0.0007	0.0009
1.285	0.012	242	39	0.0021	0.0004	0.0004	4.103	0.073	932	85	0.0076	0.0007	0.0011
1.314	0.013	152	39	0.0014	0.0004	0.0004	4.279	0.076	811	86	0.0062	0.0007	0.0009
1.346	0.014	156	37	0.0015	0.0004	0.0004	4.464	0.082	526	83	0.0041	0.0006	0.0008
1.378	0.014	155	39	0.0015	0.0004	0.0004	4.665	0.088	544	83	0.0043	0.0007	0.0008
1.412	0.014	227	43	0.0023	0.0004	0.0005	4.879	0.094	564	84	0.0043	0.0007	0.0008
1.447	0.015	113	44	0.0011	0.0004	0.0005	5.108	0.100	641	86	0.0048	0.0007	0.0008
1.483	0.016	46	42	0.0005	0.0004	0.0004	5.350	0.107	635	87	0.0048	0.0007	0.0008
1.522	0.016	31	43	0.0003	0.0004	0.0004	5.617	0.116	1038	92	0.0080	0.0007	0.0011
1.560	0.017	63	45	0.0006	0.0004	0.0004	5.899	0.124	1018	92	0.0077	0.0007	0.0011
1.601	0.017	33	47	0.0003	0.0005	0.0005	6.205	0.135	1092	91	0.0083	0.0007	0.0011
1.642	0.018	76	48	0.0008	0.0005	0.0005	6.532	0.145	951	91	0.0072	0.0007	0.0010
1.687	0.019	98	47	0.0010	0.0005	0.0005	6.891	0.158	1165	94	0.0090	0.0007	0.0012
1.733	0.020	211	49	0.0021	0.0005	0.0005	7.281	0.171	1166	95	0.0088	0.0007	0.0012
1.780	0.020	296	55	0.0027	0.0005	0.0006	7.695	0.186	1446	98	0.0111	0.0008	0.0014
1.830	0.021	263	56	0.0023	0.0005	0.0006	8.158	0.205	1316	97	0.0104	0.0008	0.0014
1.882	0.023	260	59	0.0023	0.0005	0.0006	8.658	0.223	1478	97	0.0117	0.0008	0.0015
1.935	0.023	364	58	0.0032	0.0005	0.0006	9.203	0.243	1663	98	0.0135	0.0008	0.0017
1.991	0.024	438	59	0.0039	0.0005	0.0007	9.809	0.270	1585	96	0.0135	0.0009	0.0017
2.050	0.026	322	57	0.0030	0.0005	0.0006	10.467	0.297	1907	97	0.0170	0.0009	0.0020
2.112	0.027	338	58	0.0031	0.0005	0.0006	11.208	0.326	2071	97	0.0193	0.0010	0.0023
2.176	0.028	433	58	0.0038	0.0005	0.0007	12.019	0.366	2051	96	0.0203	0.0010	0.0024
2.243	0.029	358	56	0.0031	0.0005	0.0006	12.933	0.403	2103	92	0.0215	0.0010	0.0025
2.313	0.031	322	56	0.0029	0.0005	0.0006	13.961	0.457	1621	85	0.0170	0.0009	0.0020
2.387	0.031	377	60	0.0032	0.0005	0.0006	15.094	0.512	1354	79	0.0142	0.0009	0.0017
2.463	0.034	315	63	0.0028	0.0006	0.0006	16.403	0.589	1212	76	0.0130	0.0008	0.0016
2.546	0.035	385	68	0.0035	0.0006	0.0007	17.862	0.685	942	74	0.0100	0.0008	0.0013
2.631	0.037	346	67	0.0030	0.0006	0.0007	19.551	0.691	703	73	0.0062	0.0006	0.0009

TABLE XXI: Measured partial cross section for the E_γ = 928.3–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	174	12	0.0016	0.0002	0.0003	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	168	13	0.0020	0.0003	0.0004	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	205	14	0.0025	0.0004	0.0004	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	228	17	0.0032	0.0005	0.0006	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	261	19	0.0033	0.0004	0.0006	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	196	18	0.0021	0.0003	0.0003	3.245	0.052	97	47	0.0009	0.0004	0.0004
1.148	0.011	271	20	0.0033	0.0004	0.0005	3.367	0.053	1501	64	0.0131	0.0006	0.0015
1.174	0.011	271	21	0.0026	0.0003	0.0004	3.498	0.056	1762	68	0.0151	0.0007	0.0018
1.198	0.012	377	22	0.0042	0.0004	0.0006	3.636	0.061	1910	70	0.0166	0.0007	0.0019
1.227	0.012	334	22	0.0037	0.0004	0.0006	3.782	0.064	1707	67	0.0144	0.0006	0.0017
1.256	0.012	443	26	0.0045	0.0005	0.0007	3.937	0.068	2400	72	0.0204	0.0008	0.0023
1.285	0.012	524	28	0.0047	0.0004	0.0006	4.103	0.073	2713	74	0.0235	0.0008	0.0026
1.314	0.013	432	27	0.0042	0.0004	0.0006	4.279	0.076	3300	79	0.0266	0.0008	0.0030
1.346	0.014	396	26	0.0041	0.0003	0.0006	4.464	0.082	3424	80	0.0280	0.0009	0.0031
1.378	0.014	373	27	0.0039	0.0003	0.0005	4.665	0.088	3553	81	0.0294	0.0009	0.0033
1.412	0.014	340	28	0.0037	0.0003	0.0005	4.879	0.094	3789	83	0.0308	0.0009	0.0034
1.447	0.015	342	29	0.0036	0.0003	0.0005	5.108	0.100	3696	82	0.0291	0.0009	0.0032
1.483	0.016	299	27	0.0031	0.0003	0.0005	5.350	0.107	4231	86	0.0338	0.0010	0.0037
1.522	0.016	320	28	0.0033	0.0003	0.0005	5.617	0.116	3978	86	0.0324	0.0010	0.0036
1.560	0.017	336	30	0.0034	0.0003	0.0005	5.899	0.124	4114	87	0.0328	0.0010	0.0036
1.601	0.017	286	29	0.0030	0.0003	0.0004	6.205	0.135	4101	86	0.0328	0.0009	0.0036
1.642	0.018	241	29	0.0026	0.0003	0.0004	6.532	0.145	3931	85	0.0312	0.0009	0.0034
1.687	0.019	206	28	0.0022	0.0003	0.0004	6.891	0.158	3583	83	0.0292	0.0008	0.0032
1.733	0.020	232	29	0.0024	0.0003	0.0004	7.281	0.171	3555	84	0.0284	0.0008	0.0031
1.780	0.020	199	31	0.0019	0.0003	0.0004	7.695	0.186	3354	83	0.0271	0.0008	0.0030
1.830	0.021	213	32	0.0020	0.0003	0.0004	8.158	0.205	3238	82	0.0271	0.0008	0.0030
1.882	0.023	111	32	0.0010	0.0003	0.0003	8.658	0.223	2982	80	0.0250	0.0008	0.0028
1.935	0.023	94	31	0.0009	0.0003	0.0003	9.203	0.243	2787	78	0.0240	0.0008	0.0027
1.991	0.024	126	32	0.0012	0.0003	0.0003	9.809	0.270	2510	75	0.0226	0.0008	0.0025
2.050	0.026	72	31	0.0007	0.0003	0.0003	10.467	0.297	2443	74	0.0230	0.0008	0.0026
2.112	0.027	73	32	0.0007	0.0003	0.0003	11.208	0.326	1970	70	0.0194	0.0008	0.0022
2.176	0.028	80	32	0.0007	0.0003	0.0003	12.019	0.366	1925	69	0.0201	0.0008	0.0023
2.243	0.029	80	31	0.0007	0.0003	0.0003	12.933	0.403	1412	62	0.0152	0.0007	0.0018
2.313	0.031	40	30	0.0004	0.0003	0.0003	13.961	0.457	981	55	0.0108	0.0006	0.0013
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	673	50	0.0075	0.0006	0.0010
2.463	0.034	0	1	0.0000	0.0000	0.0000	16.403	0.589	384	45	0.0043	0.0005	0.0007
2.546	0.035	0	1	0.0000	0.0000	0.0000	17.862	0.685	429	45	0.0048	0.0005	0.0007
2.631	0.037	3	21	0.0000	0.0002	0.0002	19.551	0.691	445	46	0.0041	0.0004	0.0006

TABLE XXII: Measured partial cross section for the $E_\gamma = 938.0$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	141	11	0.0013	0.0002	0.0002	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	105	10	0.0012	0.0002	0.0002	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	148	12	0.0018	0.0003	0.0003	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	117	12	0.0017	0.0003	0.0003	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	160	15	0.0021	0.0003	0.0004	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	114	14	0.0012	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	156	15	0.0019	0.0003	0.0003	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	154	16	0.0015	0.0002	0.0003	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	140	15	0.0016	0.0002	0.0003	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	136	16	0.0015	0.0002	0.0003	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	170	19	0.0017	0.0002	0.0003	3.937	0.068	8	41	0.0001	0.0004	0.0004
1.285	0.012	208	19	0.0019	0.0002	0.0003	4.103	0.073	10	41	0.0001	0.0004	0.0004
1.314	0.013	179	20	0.0018	0.0002	0.0003	4.279	0.076	42	44	0.0003	0.0004	0.0004
1.346	0.014	117	18	0.0012	0.0002	0.0002	4.464	0.082	115	44	0.0010	0.0004	0.0004
1.378	0.014	123	19	0.0013	0.0002	0.0003	4.665	0.088	49	43	0.0004	0.0004	0.0004
1.412	0.014	174	22	0.0019	0.0003	0.0003	4.879	0.094	59	43	0.0005	0.0004	0.0004
1.447	0.015	158	22	0.0017	0.0002	0.0003	5.108	0.100	131	45	0.0010	0.0004	0.0004
1.483	0.016	113	21	0.0012	0.0002	0.0003	5.350	0.107	191	47	0.0015	0.0004	0.0004
1.522	0.016	124	22	0.0013	0.0002	0.0003	5.617	0.116	58	46	0.0005	0.0004	0.0004
1.560	0.017	147	23	0.0015	0.0002	0.0003	5.899	0.124	104	47	0.0008	0.0004	0.0004
1.601	0.017	133	23	0.0014	0.0002	0.0003	6.205	0.135	237	48	0.0019	0.0004	0.0004
1.642	0.018	104	23	0.0011	0.0003	0.0003	6.532	0.145	132	47	0.0011	0.0004	0.0004
1.687	0.019	117	23	0.0013	0.0002	0.0003	6.891	0.158	106	47	0.0009	0.0004	0.0004
1.733	0.020	139	25	0.0015	0.0003	0.0003	7.281	0.171	219	49	0.0018	0.0004	0.0004
1.780	0.020	118	26	0.0012	0.0003	0.0003	7.695	0.186	92	48	0.0008	0.0004	0.0004
1.830	0.021	86	26	0.0008	0.0002	0.0003	8.158	0.205	153	49	0.0013	0.0004	0.0004
1.882	0.023	77	28	0.0007	0.0003	0.0003	8.658	0.223	175	49	0.0015	0.0004	0.0004
1.935	0.023	82	27	0.0008	0.0003	0.0003	9.203	0.243	156	48	0.0014	0.0004	0.0004
1.991	0.024	8	26	0.0001	0.0002	0.0002	9.809	0.270	165	48	0.0015	0.0004	0.0005
2.050	0.026	1	26	0.0000	0.0003	0.0003	10.467	0.297	77	45	0.0007	0.0004	0.0004
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	169	46	0.0017	0.0005	0.0005
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	108	45	0.0011	0.0005	0.0005
2.243	0.029	16	26	0.0001	0.0002	0.0002	12.933	0.403	109	42	0.0012	0.0005	0.0005
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	103	40	0.0012	0.0004	0.0005
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	0	0	0.0000	0.0000	0.0000
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	82	35	0.0009	0.0004	0.0004
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	30	34	0.0003	0.0004	0.0004
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	0	0	0.0000	0.0000	0.0000

TABLE XXIII: Measured partial cross section for the $E_\gamma = 944.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	157	14	0.0014	0.0002	0.0003	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	164	15	0.0019	0.0003	0.0004	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	139	15	0.0017	0.0003	0.0003	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	161	17	0.0023	0.0004	0.0004	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	140	17	0.0018	0.0003	0.0004	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	154	19	0.0017	0.0003	0.0003	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	127	17	0.0016	0.0003	0.0003	3.367	0.053	797	58	0.0071	0.0005	0.0009
1.174	0.011	171	20	0.0017	0.0002	0.0003	3.498	0.056	1455	65	0.0127	0.0006	0.0015
1.198	0.012	170	19	0.0019	0.0003	0.0003	3.636	0.061	1907	70	0.0168	0.0007	0.0019
1.227	0.012	135	20	0.0015	0.0003	0.0003	3.782	0.064	2594	75	0.0223	0.0008	0.0025
1.256	0.012	204	24	0.0021	0.0003	0.0004	3.937	0.068	3590	80	0.0311	0.0010	0.0035
1.285	0.012	133	22	0.0012	0.0002	0.0003	4.103	0.073	4422	86	0.0389	0.0011	0.0043
1.314	0.013	186	25	0.0018	0.0003	0.0003	4.279	0.076	5385	93	0.0442	0.0012	0.0049
1.346	0.014	145	23	0.0015	0.0003	0.0003	4.464	0.082	6372	98	0.0531	0.0014	0.0058
1.378	0.014	186	25	0.0020	0.0003	0.0004	4.665	0.088	7221	103	0.0607	0.0015	0.0067
1.412	0.014	197	28	0.0022	0.0003	0.0004	4.879	0.094	8064	107	0.0666	0.0017	0.0073
1.447	0.015	183	28	0.0020	0.0003	0.0004	5.108	0.100	9553	124	0.0767	0.0019	0.0084
1.483	0.016	80	25	0.0009	0.0003	0.0003	5.350	0.107	10990	132	0.0892	0.0021	0.0098
1.522	0.016	100	26	0.0011	0.0003	0.0003	5.617	0.116	11450	135	0.0950	0.0023	0.0104
1.560	0.017	140	28	0.0014	0.0003	0.0003	5.899	0.124	12030	138	0.0976	0.0022	0.0107
1.601	0.017	82	26	0.0009	0.0003	0.0003	6.205	0.135	12530	139	0.1018	0.0022	0.0111
1.642	0.018	117	28	0.0013	0.0003	0.0003	6.532	0.145	12760	141	0.1031	0.0021	0.0112
1.687	0.019	88	28	0.0009	0.0003	0.0003	6.891	0.158	13240	143	0.1098	0.0021	0.0119
1.733	0.020	76	28	0.0008	0.0003	0.0003	7.281	0.171	12650	141	0.1027	0.0020	0.0112
1.780	0.020	71	31	0.0007	0.0003	0.0003	7.695	0.186	12410	141	0.1020	0.0019	0.0111
1.830	0.021	28	30	0.0003	0.0003	0.0003	8.158	0.205	11790	138	0.1006	0.0020	0.0109
1.882	0.023	40	33	0.0004	0.0003	0.0003	8.658	0.223	11180	135	0.0952	0.0019	0.0104
1.935	0.023	20	32	0.0002	0.0003	0.0003	9.203	0.243	10810	133	0.0945	0.0019	0.0103
1.991	0.024	39	33	0.0004	0.0003	0.0003	9.809	0.270	10310	130	0.0946	0.0020	0.0103
2.050	0.026	5	26	0.0000	0.0003	0.0003	10.467	0.297	9887	128	0.0949	0.0020	0.0103
2.112	0.027	1	34	0.0000	0.0003	0.0003	11.208	0.326	9364	125	0.0938	0.0020	0.0102
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	8595	120	0.0912	0.0020	0.0100
2.243	0.029	16	29	0.0002	0.0003	0.0003	12.933	0.403	7017	110	0.0770	0.0018	0.0084
2.313	0.031	35	32	0.0003	0.0003	0.0003	13.961	0.457	5060	95	0.0569	0.0014	0.0063
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	3374	82	0.0380	0.0011	0.0042
2.463	0.034	0	3	0.0000	0.0000	0.0000	16.403	0.589	2342	71	0.0269	0.0009	0.0030
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	1846	66	0.0209	0.0008	0.0024
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	1303	61	0.0123	0.0006	0.0014

TABLE XXIV: Measured partial cross section for the $E_\gamma = 946.3$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	99	12	0.0009	0.0002	0.0002	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	79	12	0.0009	0.0002	0.0002	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	97	13	0.0012	0.0002	0.0003	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	104	15	0.0015	0.0003	0.0003	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	91	14	0.0012	0.0002	0.0003	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	97	16	0.0010	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	104	16	0.0013	0.0002	0.0003	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	101	17	0.0010	0.0002	0.0002	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	136	17	0.0015	0.0002	0.0003	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	98	17	0.0011	0.0002	0.0002	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	122	20	0.0013	0.0002	0.0003	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	156	21	0.0014	0.0002	0.0003	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	113	21	0.0011	0.0002	0.0002	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	128	20	0.0014	0.0002	0.0003	4.464	0.082	0	0	0.0000	0.0000	0.0000
1.378	0.014	111	21	0.0012	0.0002	0.0003	4.665	0.088	0	0	0.0000	0.0000	0.0000
1.412	0.014	116	24	0.0013	0.0003	0.0003	4.879	0.094	0	0	0.0000	0.0000	0.0000
1.447	0.015	96	23	0.0010	0.0002	0.0003	5.108	0.100	91	70	0.0007	0.0006	0.0006
1.483	0.016	96	22	0.0010	0.0002	0.0003	5.350	0.107	12	72	0.0001	0.0006	0.0006
1.522	0.016	119	24	0.0013	0.0003	0.0003	5.617	0.116	78	73	0.0006	0.0006	0.0006
1.560	0.017	56	23	0.0006	0.0002	0.0002	5.899	0.124	241	77	0.0020	0.0006	0.0007
1.601	0.017	18	21	0.0002	0.0002	0.0002	6.205	0.135	313	78	0.0025	0.0006	0.0007
1.642	0.018	84	24	0.0009	0.0003	0.0003	6.532	0.145	673	81	0.0054	0.0007	0.0009
1.687	0.019	105	25	0.0011	0.0003	0.0003	6.891	0.158	512	81	0.0042	0.0007	0.0008
1.733	0.020	53	24	0.0006	0.0003	0.0003	7.281	0.171	730	83	0.0059	0.0007	0.0009
1.780	0.020	57	26	0.0006	0.0003	0.0003	7.695	0.186	1013	85	0.0083	0.0007	0.0011
1.830	0.021	83	27	0.0008	0.0003	0.0003	8.158	0.205	762	82	0.0065	0.0007	0.0010
1.882	0.023	38	28	0.0004	0.0003	0.0003	8.658	0.223	956	82	0.0081	0.0007	0.0011
1.935	0.023	47	29	0.0004	0.0003	0.0003	9.203	0.243	879	81	0.0077	0.0007	0.0011
1.991	0.024	28	28	0.0003	0.0003	0.0003	9.809	0.270	1111	82	0.0102	0.0008	0.0013
2.050	0.026	6	27	0.0001	0.0003	0.0003	10.467	0.297	1066	80	0.0102	0.0008	0.0013
2.112	0.027	5	28	0.0000	0.0003	0.0003	11.208	0.326	1316	81	0.0132	0.0008	0.0016
2.176	0.028	7	26	0.0001	0.0002	0.0002	12.019	0.366	1248	79	0.0132	0.0009	0.0017
2.243	0.029	1	15	0.0000	0.0001	0.0001	12.933	0.403	1115	73	0.0122	0.0008	0.0015
2.313	0.031	19	28	0.0002	0.0003	0.0003	13.961	0.457	898	66	0.0101	0.0008	0.0013
2.387	0.031	19	28	0.0002	0.0003	0.0003	15.094	0.512	782	59	0.0088	0.0007	0.0012
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	540	52	0.0062	0.0006	0.0009
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	388	49	0.0044	0.0006	0.0007
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	355	48	0.0033	0.0005	0.0006

TABLE XXV: Measured partial cross section for the $E_\gamma = 972.9$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	123	11	0.0012	0.0002	0.0002	2.719	0.039	40	33	0.0004	0.0003	0.0003
1.031	0.010	104	11	0.0013	0.0002	0.0003	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	89	11	0.0011	0.0002	0.0002	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	109	13	0.0016	0.0003	0.0003	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	126	14	0.0017	0.0003	0.0003	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	143	16	0.0016	0.0002	0.0003	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	127	15	0.0016	0.0002	0.0003	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	156	17	0.0016	0.0002	0.0003	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	158	16	0.0018	0.0002	0.0003	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	136	16	0.0016	0.0002	0.0003	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	165	19	0.0017	0.0002	0.0003	3.937	0.068	6	41	0.0001	0.0004	0.0004
1.285	0.012	127	17	0.0012	0.0002	0.0002	4.103	0.073	15	41	0.0001	0.0004	0.0004
1.314	0.013	164	20	0.0017	0.0002	0.0003	4.279	0.076	540	49	0.0046	0.0004	0.0006
1.346	0.014	98	17	0.0011	0.0002	0.0002	4.464	0.082	1387	58	0.0119	0.0006	0.0014
1.378	0.014	110	18	0.0012	0.0002	0.0002	4.665	0.088	2067	64	0.0179	0.0007	0.0020
1.412	0.014	168	22	0.0019	0.0003	0.0003	4.879	0.094	2075	65	0.0177	0.0007	0.0020
1.447	0.015	142	22	0.0016	0.0002	0.0003	5.108	0.100	2292	67	0.0190	0.0007	0.0021
1.483	0.016	64	19	0.0007	0.0002	0.0002	5.350	0.107	2157	66	0.0181	0.0007	0.0020
1.522	0.016	101	21	0.0011	0.0002	0.0003	5.617	0.116	2215	68	0.0190	0.0007	0.0021
1.560	0.017	82	21	0.0009	0.0002	0.0002	5.899	0.124	2232	68	0.0187	0.0007	0.0021
1.601	0.017	117	22	0.0013	0.0002	0.0003	6.205	0.135	2040	66	0.0171	0.0006	0.0019
1.642	0.018	103	22	0.0012	0.0003	0.0003	6.532	0.145	2055	66	0.0171	0.0006	0.0019
1.687	0.019	93	22	0.0010	0.0002	0.0003	6.891	0.158	1869	65	0.0160	0.0006	0.0018
1.733	0.020	64	22	0.0007	0.0002	0.0002	7.281	0.171	1872	65	0.0157	0.0006	0.0018
1.780	0.020	64	25	0.0007	0.0003	0.0003	7.695	0.186	1895	66	0.0161	0.0006	0.0018
1.830	0.021	80	25	0.0008	0.0002	0.0003	8.158	0.205	1531	62	0.0135	0.0006	0.0016
1.882	0.023	15	25	0.0001	0.0002	0.0002	8.658	0.223	1415	61	0.0124	0.0006	0.0014
1.935	0.023	56	26	0.0005	0.0002	0.0003	9.203	0.243	1201	59	0.0108	0.0006	0.0013
1.991	0.024	68	27	0.0007	0.0003	0.0003	9.809	0.270	1248	59	0.0118	0.0006	0.0014
2.050	0.026	4	25	0.0000	0.0003	0.0003	10.467	0.297	1023	56	0.0101	0.0006	0.0012
2.112	0.027	82	27	0.0008	0.0003	0.0003	11.208	0.326	994	55	0.0103	0.0006	0.0012
2.176	0.028	1	19	0.0000	0.0002	0.0002	12.019	0.366	929	54	0.0102	0.0006	0.0012
2.243	0.029	79	27	0.0008	0.0003	0.0003	12.933	0.403	586	48	0.0066	0.0006	0.0009
2.313	0.031	61	27	0.0006	0.0003	0.0003	13.961	0.457	350	42	0.0041	0.0005	0.0007
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	394	41	0.0046	0.0005	0.0007
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	314	39	0.0037	0.0005	0.0006
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	110	35	0.0013	0.0004	0.0004
2.631	0.037	2	21	0.0000	0.0002	0.0002	19.551	0.691	86	36	0.0008	0.0004	0.0004

TABLE XXVI: Measured partial cross section for the $E_\gamma = 983.5$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	2132	49	0.0201	0.0026	0.0034	2.719	0.039	101600	328	0.9920	0.0229	0.1085
1.031	0.010	6511	83	0.0795	0.0106	0.0136	2.815	0.041	106300	335	1.0230	0.0235	0.1119
1.053	0.009	6999	87	0.0894	0.0112	0.0148	2.913	0.043	107400	337	1.0190	0.0230	0.1114
1.075	0.010	17650	136	0.2613	0.0320	0.0425	3.019	0.045	113000	346	1.0500	0.0238	0.1148
1.100	0.010	20080	145	0.2688	0.0286	0.0405	3.127	0.048	118200	354	1.0830	0.0244	0.1184
1.122	0.009	27600	170	0.3073	0.0281	0.0432	3.245	0.052	117400	353	1.1100	0.0254	0.1214
1.148	0.011	24330	160	0.3087	0.0291	0.0440	3.367	0.053	122400	361	1.1240	0.0246	0.1227
1.174	0.011	30770	180	0.3140	0.0259	0.0424	3.498	0.056	128800	371	1.1610	0.0255	0.1268
1.198	0.012	26740	168	0.3091	0.0267	0.0425	3.636	0.061	135200	380	1.2300	0.0273	0.1344
1.227	0.012	24510	161	0.2883	0.0255	0.0400	3.782	0.064	133400	377	1.1810	0.0251	0.1288
1.256	0.012	44330	216	0.4700	0.0388	0.0635	3.937	0.068	135700	380	1.2110	0.0261	0.1321
1.285	0.012	25600	164	0.2403	0.0160	0.0303	4.103	0.073	135000	379	1.2250	0.0270	0.1338
1.314	0.013	39980	205	0.4085	0.0252	0.0504	4.279	0.076	140800	387	1.1910	0.0247	0.1298
1.346	0.014	28410	173	0.3093	0.0168	0.0371	4.464	0.082	139800	385	1.2010	0.0251	0.1309
1.378	0.014	39330	203	0.4313	0.0195	0.0501	4.665	0.088	142400	389	1.2340	0.0263	0.1346
1.412	0.014	63220	257	0.7174	0.0275	0.0815	4.879	0.094	145100	393	1.2370	0.0264	0.1349
1.447	0.015	60960	253	0.6712	0.0226	0.0753	5.108	0.100	143200	391	1.1850	0.0245	0.1291
1.483	0.016	44430	216	0.4909	0.0153	0.0547	5.350	0.107	144000	392	1.2050	0.0253	0.1313
1.522	0.016	52040	233	0.5697	0.0161	0.0630	5.617	0.116	145000	393	1.2410	0.0263	0.1353
1.560	0.017	51120	232	0.5391	0.0148	0.0595	5.899	0.124	148900	399	1.2450	0.0251	0.1355
1.601	0.017	43420	214	0.4728	0.0129	0.0522	6.205	0.135	149600	399	1.2540	0.0230	0.1361
1.642	0.018	53660	238	0.6112	0.0167	0.0675	6.532	0.145	149900	400	1.2490	0.0213	0.1353
1.687	0.019	53700	238	0.5978	0.0156	0.0658	6.891	0.158	149400	399	1.2780	0.0210	0.1383
1.733	0.020	55620	242	0.6017	0.0157	0.0663	7.281	0.171	147300	397	1.2330	0.0196	0.1333
1.780	0.020	76960	284	0.7839	0.0194	0.0861	7.695	0.186	145200	394	1.2310	0.0190	0.1330
1.830	0.021	60350	253	0.5931	0.0143	0.0650	8.158	0.205	141900	390	1.2480	0.0199	0.1350
1.882	0.023	75540	282	0.7266	0.0169	0.0795	8.658	0.223	138000	385	1.2120	0.0194	0.1311
1.935	0.023	81720	293	0.7837	0.0182	0.0858	9.203	0.243	131600	376	1.1870	0.0189	0.1284
1.991	0.024	82400	294	0.8063	0.0187	0.0882	9.809	0.270	125400	367	1.1870	0.0198	0.1285
2.050	0.026	72190	276	0.7372	0.0172	0.0807	10.467	0.297	118300	357	1.1710	0.0201	0.1269
2.112	0.027	73990	279	0.7394	0.0171	0.0809	11.208	0.326	112400	348	1.1610	0.0203	0.1258
2.176	0.028	73680	279	0.7142	0.0163	0.0781	12.019	0.366	104500	335	1.1430	0.0204	0.1239
2.243	0.029	86690	302	0.8393	0.0190	0.0918	12.933	0.403	87960	308	0.9951	0.0180	0.1079
2.313	0.031	89230	306	0.8811	0.0201	0.0964	13.961	0.457	67010	270	0.7769	0.0137	0.0842
2.387	0.031	84830	299	0.8035	0.0180	0.0878	15.094	0.512	49110	232	0.5706	0.0096	0.0618
2.463	0.034	95040	317	0.9512	0.0222	0.1041	16.403	0.589	36370	201	0.4313	0.0075	0.0467
2.546	0.035	108500	338	1.0800	0.0247	0.1181	17.862	0.685	28600	180	0.3346	0.0058	0.0363
2.631	0.037	108100	338	1.0360	0.0234	0.1133	19.551	0.691	23880	166	0.2323	0.0039	0.0252

TABLE XXVII: Measured partial cross section for the E_γ = 1037.6–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	18	9	0.0002	0.0001	0.0001	2.719	0.039	12	34	0.0001	0.0003	0.0003
1.031	0.010	49	11	0.0006	0.0002	0.0002	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	76	12	0.0010	0.0002	0.0002	2.913	0.043	0	4	0.0000	0.0000	0.0000
1.075	0.010	62	12	0.0009	0.0002	0.0002	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	44	11	0.0006	0.0002	0.0002	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	62	13	0.0007	0.0002	0.0002	3.245	0.052	1	18	0.0000	0.0002	0.0002
1.148	0.011	48	12	0.0006	0.0002	0.0002	3.367	0.053	28	45	0.0003	0.0004	0.0004
1.174	0.011	83	15	0.0009	0.0002	0.0002	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	103	16	0.0012	0.0002	0.0003	3.636	0.061	28	47	0.0003	0.0004	0.0004
1.227	0.012	152	19	0.0018	0.0003	0.0003	3.782	0.064	55	45	0.0005	0.0004	0.0004
1.256	0.012	105	19	0.0011	0.0002	0.0003	3.937	0.068	318	47	0.0029	0.0004	0.0005
1.285	0.012	141	22	0.0014	0.0002	0.0003	4.103	0.073	473	49	0.0044	0.0005	0.0007
1.314	0.013	140	22	0.0015	0.0002	0.0003	4.279	0.076	789	54	0.0069	0.0005	0.0009
1.346	0.014	104	21	0.0012	0.0002	0.0003	4.464	0.082	1077	57	0.0095	0.0005	0.0012
1.378	0.014	116	22	0.0013	0.0003	0.0003	4.665	0.088	1644	63	0.0147	0.0006	0.0017
1.412	0.014	107	22	0.0013	0.0003	0.0003	4.879	0.094	1786	65	0.0157	0.0007	0.0018
1.447	0.015	112	23	0.0013	0.0003	0.0003	5.108	0.100	2064	68	0.0176	0.0007	0.0020
1.483	0.016	118	24	0.0013	0.0003	0.0003	5.350	0.107	2520	72	0.0218	0.0008	0.0025
1.522	0.016	145	25	0.0016	0.0003	0.0003	5.617	0.116	3135	78	0.0277	0.0009	0.0031
1.560	0.017	143	25	0.0016	0.0003	0.0003	5.899	0.124	3744	83	0.0323	0.0010	0.0036
1.601	0.017	136	26	0.0015	0.0003	0.0003	6.205	0.135	4225	86	0.0365	0.0010	0.0040
1.642	0.018	112	26	0.0013	0.0003	0.0003	6.532	0.145	4574	88	0.0393	0.0010	0.0043
1.687	0.019	156	26	0.0018	0.0003	0.0004	6.891	0.158	5368	95	0.0474	0.0011	0.0052
1.733	0.020	121	26	0.0014	0.0003	0.0003	7.281	0.171	5846	98	0.0505	0.0012	0.0055
1.780	0.020	105	27	0.0011	0.0003	0.0003	7.695	0.186	7026	105	0.0614	0.0013	0.0067
1.830	0.021	144	30	0.0015	0.0003	0.0003	8.158	0.205	7429	108	0.0674	0.0014	0.0074
1.882	0.023	111	31	0.0011	0.0003	0.0003	8.658	0.223	7959	111	0.0721	0.0015	0.0079
1.935	0.023	111	30	0.0011	0.0003	0.0003	9.203	0.243	8606	114	0.0801	0.0016	0.0087
1.991	0.024	41	28	0.0004	0.0003	0.0003	9.809	0.270	9368	118	0.0915	0.0019	0.0100
2.050	0.026	45	27	0.0005	0.0003	0.0003	10.467	0.297	9793	120	0.1000	0.0021	0.0109
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	10360	123	0.1105	0.0023	0.0120
2.176	0.028	47	28	0.0005	0.0003	0.0003	12.019	0.366	10990	125	0.1240	0.0026	0.0135
2.243	0.029	81	27	0.0008	0.0003	0.0003	12.933	0.403	10460	122	0.1220	0.0026	0.0133
2.313	0.031	33	26	0.0003	0.0003	0.0003	13.961	0.457	8573	111	0.1025	0.0022	0.0112
2.387	0.031	24	29	0.0002	0.0003	0.0003	15.094	0.512	6308	97	0.0756	0.0017	0.0083
2.463	0.034	12	30	0.0001	0.0003	0.0003	16.403	0.589	4654	85	0.0569	0.0014	0.0062
2.546	0.035	39	33	0.0004	0.0003	0.0003	17.862	0.685	3141	74	0.0379	0.0011	0.0042
2.631	0.037	8	28	0.0001	0.0003	0.0003	19.551	0.691	2510	69	0.0252	0.0008	0.0028

TABLE XXVIII: Measured partial cross section for the E_γ = 1063.3–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	64	12	0.0006	0.0001	0.0002	2.719	0.039	286	39	0.0029	0.0004	0.0005
1.031	0.010	36	11	0.0005	0.0002	0.0002	2.815	0.041	338	40	0.0034	0.0004	0.0005
1.053	0.009	46	11	0.0006	0.0002	0.0002	2.913	0.043	416	41	0.0041	0.0004	0.0006
1.075	0.010	19	10	0.0003	0.0002	0.0002	3.019	0.045	356	41	0.0035	0.0004	0.0005
1.100	0.010	25	11	0.0003	0.0002	0.0002	3.127	0.048	489	45	0.0047	0.0004	0.0007
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	474	46	0.0047	0.0005	0.0007
1.148	0.011	0	1	0.0000	0.0000	0.0000	3.367	0.053	452	47	0.0043	0.0005	0.0007
1.174	0.011	0	2	0.0000	0.0000	0.0000	3.498	0.056	1060	55	0.0100	0.0006	0.0012
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	992	55	0.0094	0.0006	0.0012
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	1157	55	0.0107	0.0006	0.0013
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	1372	55	0.0128	0.0006	0.0015
1.285	0.012	0	0	0.0000	0.0000	0.0000	4.103	0.073	1328	55	0.0126	0.0006	0.0015
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	1511	58	0.0134	0.0006	0.0015
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	1441	56	0.0129	0.0006	0.0015
1.378	0.014	0	0	0.0000	0.0000	0.0000	4.665	0.088	1463	57	0.0132	0.0006	0.0015
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	1439	57	0.0128	0.0006	0.0015
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	1490	58	0.0129	0.0006	0.0015
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	1537	58	0.0134	0.0006	0.0015
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	1578	60	0.0141	0.0006	0.0016
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	1666	60	0.0146	0.0006	0.0017
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	1676	60	0.0147	0.0006	0.0017
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	1739	61	0.0151	0.0006	0.0017
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	1611	60	0.0144	0.0006	0.0016
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	1552	61	0.0136	0.0006	0.0016
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	1617	61	0.0143	0.0006	0.0016
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	1524	61	0.0140	0.0006	0.0016
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	1517	60	0.0139	0.0006	0.0016
1.935	0.023	45	35	0.0005	0.0004	0.0004	9.203	0.243	1604	61	0.0151	0.0006	0.0017
1.991	0.024	186	36	0.0019	0.0004	0.0004	9.809	0.270	1426	59	0.0141	0.0006	0.0016
2.050	0.026	312	37	0.0033	0.0004	0.0005	10.467	0.297	1259	57	0.0130	0.0006	0.0015
2.112	0.027	356	38	0.0037	0.0004	0.0006	11.208	0.326	1311	57	0.0142	0.0007	0.0017
2.176	0.028	293	36	0.0030	0.0004	0.0005	12.019	0.366	1270	56	0.0145	0.0007	0.0017
2.243	0.029	207	32	0.0021	0.0003	0.0004	12.933	0.403	1136	53	0.0134	0.0007	0.0016
2.313	0.031	190	32	0.0020	0.0003	0.0004	13.961	0.457	773	48	0.0094	0.0006	0.0012
2.387	0.031	258	36	0.0026	0.0004	0.0005	15.094	0.512	582	44	0.0071	0.0005	0.0009
2.463	0.034	295	38	0.0031	0.0004	0.0005	16.403	0.589	516	43	0.0064	0.0005	0.0009
2.546	0.035	320	39	0.0033	0.0004	0.0005	17.862	0.685	437	42	0.0053	0.0005	0.0008
2.631	0.037	216	38	0.0022	0.0004	0.0004	19.551	0.691	462	44	0.0047	0.0005	0.0007

TABLE XXIX: Measured partial cross section for the $E_\gamma = 1071.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	9	11	0.0001	0.0001	0.0001	2.719	0.039	484	45	0.0050	0.0005	0.0007
1.031	0.010	9	11	0.0001	0.0001	0.0001	2.815	0.041	431	45	0.0044	0.0005	0.0007
1.053	0.009	6	11	0.0001	0.0001	0.0001	2.913	0.043	493	46	0.0050	0.0005	0.0007
1.075	0.010	7	11	0.0001	0.0002	0.0002	3.019	0.045	576	49	0.0057	0.0005	0.0008
1.100	0.010	17	12	0.0002	0.0002	0.0002	3.127	0.048	614	51	0.0060	0.0005	0.0008
1.122	0.009	0	5	0.0000	0.0000	0.0000	3.245	0.052	744	54	0.0075	0.0006	0.0010
1.148	0.011	0	0	0.0000	0.0000	0.0000	3.367	0.053	961	58	0.0094	0.0006	0.0012
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	818	59	0.0078	0.0006	0.0010
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	804	59	0.0078	0.0006	0.0010
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	599	55	0.0056	0.0005	0.0008
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	486	52	0.0046	0.0005	0.0007
1.285	0.012	0	0	0.0000	0.0000	0.0000	4.103	0.073	464	51	0.0045	0.0005	0.0007
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	458	53	0.0041	0.0005	0.0007
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	500	52	0.0046	0.0005	0.0007
1.378	0.014	0	0	0.0000	0.0000	0.0000	4.665	0.088	689	55	0.0063	0.0005	0.0009
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	774	56	0.0070	0.0005	0.0009
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	783	57	0.0069	0.0005	0.0009
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	970	60	0.0086	0.0006	0.0011
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	1122	62	0.0102	0.0006	0.0012
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	1354	64	0.0120	0.0006	0.0014
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	1419	64	0.0126	0.0006	0.0015
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	1585	66	0.0140	0.0006	0.0016
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	1689	68	0.0154	0.0007	0.0018
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	1532	68	0.0136	0.0006	0.0016
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	1545	68	0.0139	0.0006	0.0016
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	1560	68	0.0146	0.0007	0.0017
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	1702	69	0.0159	0.0007	0.0018
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	1637	68	0.0157	0.0007	0.0018
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	1479	66	0.0149	0.0007	0.0017
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	1517	66	0.0160	0.0007	0.0019
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	1537	66	0.0169	0.0008	0.0020
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	1416	64	0.0165	0.0008	0.0019
2.243	0.029	51	32	0.0005	0.0003	0.0003	12.933	0.403	1340	62	0.0161	0.0008	0.0019
2.313	0.031	56	32	0.0006	0.0003	0.0003	13.961	0.457	981	56	0.0121	0.0007	0.0015
2.387	0.031	207	38	0.0021	0.0004	0.0004	15.094	0.512	624	51	0.0077	0.0006	0.0010
2.463	0.034	351	42	0.0037	0.0005	0.0006	16.403	0.589	540	49	0.0068	0.0006	0.0010
2.546	0.035	450	44	0.0048	0.0005	0.0007	17.862	0.685	382	47	0.0047	0.0006	0.0008
2.631	0.037	432	44	0.0044	0.0005	0.0007	19.551	0.691	295	48	0.0031	0.0005	0.0006

TABLE XXX: Measured partial cross section for the E_γ = 1140.8–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	40	15	0.0004	0.0002	0.0002	2.719	0.039	254	39	0.0027	0.0004	0.0005
1.031	0.010	24	15	0.0003	0.0002	0.0002	2.815	0.041	393	42	0.0041	0.0005	0.0006
1.053	0.009	43	15	0.0006	0.0002	0.0002	2.913	0.043	322	42	0.0033	0.0004	0.0006
1.075	0.010	34	14	0.0005	0.0002	0.0002	3.019	0.045	329	44	0.0033	0.0005	0.0006
1.100	0.010	32	15	0.0005	0.0002	0.0002	3.127	0.048	340	47	0.0034	0.0005	0.0006
1.122	0.009	35	14	0.0004	0.0002	0.0002	3.245	0.052	388	50	0.0040	0.0005	0.0007
1.148	0.011	68	15	0.0009	0.0002	0.0002	3.367	0.053	474	54	0.0048	0.0006	0.0008
1.174	0.011	54	15	0.0006	0.0002	0.0002	3.498	0.056	353	54	0.0035	0.0005	0.0007
1.198	0.012	48	14	0.0006	0.0002	0.0002	3.636	0.061	444	56	0.0044	0.0006	0.0007
1.227	0.012	94	16	0.0012	0.0002	0.0003	3.782	0.064	316	54	0.0031	0.0005	0.0006
1.256	0.012	120	17	0.0014	0.0002	0.0003	3.937	0.068	296	52	0.0029	0.0005	0.0006
1.285	0.012	141	18	0.0014	0.0002	0.0003	4.103	0.073	248	52	0.0025	0.0005	0.0006
1.314	0.013	263	21	0.0029	0.0003	0.0004	4.279	0.076	156	53	0.0014	0.0005	0.0005
1.346	0.014	210	21	0.0025	0.0003	0.0004	4.464	0.082	267	53	0.0025	0.0005	0.0006
1.378	0.014	297	23	0.0036	0.0003	0.0005	4.665	0.088	467	56	0.0044	0.0005	0.0007
1.412	0.014	320	23	0.0040	0.0003	0.0005	4.879	0.094	606	58	0.0056	0.0006	0.0008
1.447	0.015	331	24	0.0040	0.0003	0.0005	5.108	0.100	676	60	0.0061	0.0006	0.0009
1.483	0.016	321	24	0.0039	0.0003	0.0005	5.350	0.107	697	61	0.0064	0.0006	0.0009
1.522	0.016	418	27	0.0050	0.0004	0.0006	5.617	0.116	845	64	0.0079	0.0006	0.0010
1.560	0.017	401	27	0.0046	0.0003	0.0006	5.899	0.124	872	65	0.0080	0.0006	0.0011
1.601	0.017	455	29	0.0054	0.0004	0.0007	6.205	0.135	1141	67	0.0104	0.0006	0.0013
1.642	0.018	388	28	0.0048	0.0004	0.0006	6.532	0.145	1202	68	0.0109	0.0006	0.0013
1.687	0.019	392	28	0.0048	0.0004	0.0006	6.891	0.158	1067	68	0.0100	0.0007	0.0013
1.733	0.020	361	28	0.0043	0.0003	0.0006	7.281	0.171	1163	70	0.0106	0.0007	0.0013
1.780	0.020	345	29	0.0038	0.0003	0.0005	7.695	0.186	1169	70	0.0108	0.0007	0.0013
1.830	0.021	395	31	0.0042	0.0003	0.0006	8.158	0.205	1000	69	0.0096	0.0007	0.0012
1.882	0.023	329	31	0.0035	0.0003	0.0005	8.658	0.223	940	68	0.0090	0.0007	0.0012
1.935	0.023	281	30	0.0029	0.0003	0.0005	9.203	0.243	955	68	0.0094	0.0007	0.0012
1.991	0.024	312	31	0.0033	0.0003	0.0005	9.809	0.270	902	67	0.0093	0.0007	0.0012
2.050	0.026	235	30	0.0026	0.0003	0.0004	10.467	0.297	745	65	0.0081	0.0007	0.0011
2.112	0.027	162	29	0.0018	0.0003	0.0004	11.208	0.326	828	65	0.0093	0.0008	0.0013
2.176	0.028	163	29	0.0017	0.0003	0.0004	12.019	0.366	837	64	0.0100	0.0008	0.0013
2.243	0.029	192	28	0.0020	0.0003	0.0004	12.933	0.403	695	60	0.0086	0.0008	0.0012
2.313	0.031	141	27	0.0015	0.0003	0.0003	13.961	0.457	549	56	0.0070	0.0007	0.0010
2.387	0.031	240	32	0.0025	0.0003	0.0004	15.094	0.512	453	53	0.0057	0.0007	0.0009
2.463	0.034	203	34	0.0022	0.0004	0.0004	16.403	0.589	300	50	0.0039	0.0007	0.0008
2.546	0.035	151	36	0.0016	0.0004	0.0004	17.862	0.685	172	48	0.0022	0.0006	0.0007
2.631	0.037	281	38	0.0029	0.0004	0.0005	19.551	0.691	165	50	0.0018	0.0005	0.0006

TABLE XXXI: Measured partial cross section for the $E_\gamma = 1164.3$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	28	12	0.0003	0.0001	0.0001	2.719	0.039	42	24	0.0005	0.0003	0.0003
1.031	0.010	8	10	0.0001	0.0001	0.0001	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	9	9	0.0001	0.0001	0.0001	2.913	0.043	53	25	0.0006	0.0003	0.0003
1.075	0.010	29	10	0.0005	0.0002	0.0002	3.019	0.045	55	27	0.0006	0.0003	0.0003
1.100	0.010	13	9	0.0002	0.0001	0.0001	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	9	9	0.0001	0.0001	0.0001	3.245	0.052	111	31	0.0012	0.0003	0.0003
1.148	0.011	15	9	0.0002	0.0001	0.0001	3.367	0.053	101	33	0.0010	0.0003	0.0004
1.174	0.011	31	11	0.0003	0.0001	0.0001	3.498	0.056	66	33	0.0007	0.0003	0.0003
1.198	0.012	26	10	0.0003	0.0001	0.0001	3.636	0.061	85	34	0.0009	0.0003	0.0004
1.227	0.012	36	10	0.0005	0.0001	0.0001	3.782	0.064	70	33	0.0007	0.0003	0.0003
1.256	0.012	54	11	0.0006	0.0001	0.0002	3.937	0.068	46	32	0.0005	0.0003	0.0003
1.285	0.012	42	11	0.0004	0.0001	0.0001	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	53	11	0.0006	0.0001	0.0001	4.279	0.076	3	33	0.0000	0.0003	0.0003
1.346	0.014	32	10	0.0004	0.0001	0.0001	4.464	0.082	86	33	0.0008	0.0003	0.0003
1.378	0.014	48	11	0.0006	0.0001	0.0001	4.665	0.088	181	35	0.0017	0.0003	0.0004
1.412	0.014	66	12	0.0008	0.0002	0.0002	4.879	0.094	158	35	0.0015	0.0003	0.0004
1.447	0.015	57	12	0.0007	0.0001	0.0002	5.108	0.100	230	37	0.0021	0.0003	0.0004
1.483	0.016	62	13	0.0008	0.0002	0.0002	5.350	0.107	168	37	0.0016	0.0003	0.0004
1.522	0.016	28	11	0.0003	0.0001	0.0001	5.617	0.116	242	39	0.0023	0.0004	0.0004
1.560	0.017	33	12	0.0004	0.0001	0.0001	5.899	0.124	223	39	0.0021	0.0004	0.0004
1.601	0.017	45	13	0.0005	0.0002	0.0002	6.205	0.135	248	39	0.0023	0.0004	0.0004
1.642	0.018	49	13	0.0006	0.0002	0.0002	6.532	0.145	280	40	0.0026	0.0004	0.0005
1.687	0.019	16	12	0.0002	0.0001	0.0001	6.891	0.158	266	40	0.0025	0.0004	0.0005
1.733	0.020	31	13	0.0004	0.0002	0.0002	7.281	0.171	289	42	0.0027	0.0004	0.0005
1.780	0.020	24	14	0.0003	0.0002	0.0002	7.695	0.186	206	41	0.0019	0.0004	0.0004
1.830	0.021	38	16	0.0004	0.0002	0.0002	8.158	0.205	151	40	0.0015	0.0004	0.0004
1.882	0.023	5	15	0.0001	0.0002	0.0002	8.658	0.223	142	40	0.0014	0.0004	0.0004
1.935	0.023	19	16	0.0002	0.0002	0.0002	9.203	0.243	149	40	0.0015	0.0004	0.0004
1.991	0.024	24	16	0.0003	0.0002	0.0002	9.809	0.270	134	39	0.0014	0.0004	0.0004
2.050	0.026	17	16	0.0002	0.0002	0.0002	10.467	0.297	138	39	0.0015	0.0004	0.0005
2.112	0.027	21	17	0.0002	0.0002	0.0002	11.208	0.326	141	39	0.0016	0.0004	0.0005
2.176	0.028	31	17	0.0003	0.0002	0.0002	12.019	0.366	203	39	0.0025	0.0005	0.0005
2.243	0.029	18	15	0.0002	0.0002	0.0002	12.933	0.403	92	35	0.0012	0.0004	0.0005
2.313	0.031	0	1	0.0000	0.0000	0.0000	13.961	0.457	118	34	0.0015	0.0004	0.0005
2.387	0.031	2	17	0.0000	0.0002	0.0002	15.094	0.512	104	32	0.0013	0.0004	0.0004
2.463	0.034	27	20	0.0003	0.0002	0.0002	16.403	0.589	53	30	0.0007	0.0004	0.0004
2.546	0.035	28	22	0.0003	0.0002	0.0002	17.862	0.685	0	0	0.0000	0.0000	0.0000
2.631	0.037	28	23	0.0003	0.0002	0.0002	19.551	0.691	0	0	0.0000	0.0000	0.0000

TABLE XXXII: Measured partial cross section for the E_γ = 1173.3–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	21	11	0.0002	0.0001	0.0001	2.719	0.039	18	22	0.0002	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	13	23	0.0001	0.0002	0.0002
1.053	0.009	12	10	0.0002	0.0001	0.0001	2.913	0.043	32	24	0.0003	0.0003	0.0003
1.075	0.010	14	9	0.0002	0.0002	0.0002	3.019	0.045	13	25	0.0001	0.0003	0.0003
1.100	0.010	34	11	0.0005	0.0002	0.0002	3.127	0.048	71	28	0.0007	0.0003	0.0003
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	29	29	0.0003	0.0003	0.0003
1.148	0.011	10	9	0.0001	0.0001	0.0001	3.367	0.053	40	32	0.0004	0.0003	0.0003
1.174	0.011	15	9	0.0002	0.0001	0.0001	3.498	0.056	14	33	0.0001	0.0003	0.0003
1.198	0.012	14	9	0.0002	0.0001	0.0001	3.636	0.061	26	33	0.0003	0.0003	0.0003
1.227	0.012	9	9	0.0001	0.0001	0.0001	3.782	0.064	32	32	0.0003	0.0003	0.0003
1.256	0.012	24	10	0.0003	0.0001	0.0001	3.937	0.068	46	32	0.0005	0.0003	0.0003
1.285	0.012	34	10	0.0004	0.0001	0.0001	4.103	0.073	40	32	0.0004	0.0003	0.0003
1.314	0.013	45	11	0.0005	0.0001	0.0001	4.279	0.076	48	34	0.0005	0.0003	0.0003
1.346	0.014	53	12	0.0006	0.0002	0.0002	4.464	0.082	5	32	0.0000	0.0003	0.0003
1.378	0.014	39	11	0.0005	0.0001	0.0001	4.665	0.088	68	33	0.0007	0.0003	0.0003
1.412	0.014	46	11	0.0006	0.0001	0.0002	4.879	0.094	27	32	0.0003	0.0003	0.0003
1.447	0.015	48	12	0.0006	0.0001	0.0002	5.108	0.100	52	34	0.0005	0.0003	0.0003
1.483	0.016	42	11	0.0005	0.0001	0.0001	5.350	0.107	54	35	0.0005	0.0003	0.0003
1.522	0.016	36	11	0.0004	0.0001	0.0001	5.617	0.116	221	39	0.0021	0.0004	0.0004
1.560	0.017	48	12	0.0006	0.0001	0.0002	5.899	0.124	177	38	0.0017	0.0004	0.0004
1.601	0.017	45	13	0.0005	0.0002	0.0002	6.205	0.135	142	37	0.0013	0.0003	0.0004
1.642	0.018	71	14	0.0009	0.0002	0.0002	6.532	0.145	173	38	0.0016	0.0004	0.0004
1.687	0.019	56	14	0.0007	0.0002	0.0002	6.891	0.158	153	38	0.0015	0.0004	0.0004
1.733	0.020	40	14	0.0005	0.0002	0.0002	7.281	0.171	252	41	0.0024	0.0004	0.0005
1.780	0.020	56	15	0.0006	0.0002	0.0002	7.695	0.186	179	40	0.0017	0.0004	0.0004
1.830	0.021	48	16	0.0005	0.0002	0.0002	8.158	0.205	358	43	0.0035	0.0004	0.0006
1.882	0.023	0	5	0.0000	0.0000	0.0000	8.658	0.223	342	43	0.0034	0.0004	0.0006
1.935	0.023	12	15	0.0001	0.0002	0.0002	9.203	0.243	292	41	0.0029	0.0004	0.0005
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	438	43	0.0046	0.0005	0.0007
2.050	0.026	7	15	0.0001	0.0002	0.0002	10.467	0.297	310	41	0.0034	0.0005	0.0006
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	308	41	0.0036	0.0005	0.0006
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	388	42	0.0047	0.0005	0.0007
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	388	40	0.0049	0.0005	0.0007
2.313	0.031	2	13	0.0000	0.0001	0.0001	13.961	0.457	228	35	0.0030	0.0005	0.0006
2.387	0.031	31	18	0.0003	0.0002	0.0002	15.094	0.512	205	34	0.0027	0.0004	0.0005
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	111	31	0.0015	0.0004	0.0004
2.546	0.035	42	22	0.0005	0.0002	0.0003	17.862	0.685	101	32	0.0013	0.0004	0.0004
2.631	0.037	29	22	0.0003	0.0002	0.0002	19.551	0.691	51	32	0.0006	0.0003	0.0004

TABLE XXXIII: Measured partial cross section for the E_γ = 1195.7–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	88	31	0.0010	0.0004	0.0004
1.031	0.010	0	6	0.0000	0.0000	0.0000	2.815	0.041	120	32	0.0013	0.0004	0.0004
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	248	35	0.0027	0.0004	0.0005
1.075	0.010	0	2	0.0000	0.0000	0.0000	3.019	0.045	163	36	0.0018	0.0004	0.0004
1.100	0.010	2	7	0.0000	0.0001	0.0001	3.127	0.048	233	39	0.0025	0.0004	0.0005
1.122	0.009	1	6	0.0000	0.0001	0.0001	3.245	0.052	100	39	0.0011	0.0004	0.0004
1.148	0.011	0	0	0.0000	0.0000	0.0000	3.367	0.053	136	42	0.0014	0.0004	0.0005
1.174	0.011	3	10	0.0000	0.0001	0.0001	3.498	0.056	170	44	0.0018	0.0005	0.0005
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	223	46	0.0023	0.0005	0.0005
1.227	0.012	17	12	0.0002	0.0002	0.0002	3.782	0.064	610	50	0.0062	0.0005	0.0009
1.256	0.012	12	12	0.0001	0.0001	0.0001	3.937	0.068	709	50	0.0073	0.0005	0.0010
1.285	0.012	40	13	0.0004	0.0001	0.0002	4.103	0.073	728	50	0.0076	0.0006	0.0010
1.314	0.013	60	14	0.0007	0.0002	0.0002	4.279	0.076	847	53	0.0083	0.0005	0.0010
1.346	0.014	82	15	0.0010	0.0002	0.0002	4.464	0.082	730	51	0.0073	0.0005	0.0009
1.378	0.014	57	13	0.0007	0.0002	0.0002	4.665	0.088	832	52	0.0083	0.0006	0.0010
1.412	0.014	48	14	0.0006	0.0002	0.0002	4.879	0.094	772	52	0.0076	0.0005	0.0010
1.447	0.015	72	15	0.0009	0.0002	0.0002	5.108	0.100	767	53	0.0073	0.0005	0.0009
1.483	0.016	101	16	0.0013	0.0002	0.0002	5.350	0.107	738	53	0.0071	0.0005	0.0009
1.522	0.016	81	16	0.0010	0.0002	0.0002	5.617	0.116	859	56	0.0085	0.0006	0.0011
1.560	0.017	86	17	0.0010	0.0002	0.0002	5.899	0.124	806	55	0.0078	0.0006	0.0010
1.601	0.017	89	18	0.0011	0.0002	0.0003	6.205	0.135	831	55	0.0081	0.0006	0.0010
1.642	0.018	93	18	0.0012	0.0002	0.0003	6.532	0.145	613	54	0.0059	0.0005	0.0008
1.687	0.019	61	18	0.0008	0.0002	0.0002	6.891	0.158	572	54	0.0057	0.0005	0.0008
1.733	0.020	39	17	0.0005	0.0002	0.0002	7.281	0.171	537	55	0.0052	0.0005	0.0008
1.780	0.020	64	19	0.0008	0.0002	0.0002	7.695	0.186	504	55	0.0049	0.0005	0.0008
1.830	0.021	42	20	0.0005	0.0002	0.0002	8.158	0.205	423	54	0.0043	0.0006	0.0007
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	381	54	0.0039	0.0006	0.0007
1.935	0.023	1	14	0.0000	0.0002	0.0002	9.203	0.243	309	53	0.0032	0.0006	0.0007
1.991	0.024	26	21	0.0003	0.0002	0.0002	9.809	0.270	322	52	0.0035	0.0006	0.0007
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	293	52	0.0034	0.0006	0.0007
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	229	51	0.0027	0.0006	0.0007
2.176	0.028	13	21	0.0001	0.0002	0.0002	12.019	0.366	227	49	0.0029	0.0006	0.0007
2.243	0.029	31	20	0.0003	0.0002	0.0002	12.933	0.403	154	46	0.0020	0.0006	0.0006
2.313	0.031	24	20	0.0003	0.0002	0.0002	13.961	0.457	68	42	0.0009	0.0006	0.0006
2.387	0.031	18	23	0.0002	0.0003	0.0003	15.094	0.512	66	41	0.0009	0.0006	0.0006
2.463	0.034	5	25	0.0001	0.0003	0.0003	16.403	0.589	11	39	0.0002	0.0005	0.0005
2.546	0.035	70	29	0.0008	0.0003	0.0003	17.862	0.685	53	40	0.0007	0.0005	0.0005
2.631	0.037	191	32	0.0021	0.0004	0.0004	19.551	0.691	0	0	0.0000	0.0000	0.0000

TABLE XXXIV: Measured partial cross section for the E_γ = 1212.8–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	115	41	0.0013	0.0005	0.0005
1.031	0.010	2	9	0.0000	0.0001	0.0001	2.815	0.041	135	41	0.0015	0.0005	0.0005
1.053	0.009	18	11	0.0003	0.0002	0.0002	2.913	0.043	130	41	0.0014	0.0005	0.0005
1.075	0.010	0	1	0.0000	0.0000	0.0000	3.019	0.045	178	44	0.0019	0.0005	0.0005
1.100	0.010	29	11	0.0005	0.0002	0.0002	3.127	0.048	142	44	0.0015	0.0005	0.0005
1.122	0.009	9	10	0.0001	0.0001	0.0001	3.245	0.052	102	45	0.0011	0.0005	0.0005
1.148	0.011	19	11	0.0003	0.0002	0.0002	3.367	0.053	114	46	0.0012	0.0005	0.0005
1.174	0.011	0	2	0.0000	0.0000	0.0000	3.498	0.056	138	47	0.0015	0.0005	0.0005
1.198	0.012	22	10	0.0003	0.0001	0.0001	3.636	0.061	29	47	0.0003	0.0005	0.0005
1.227	0.012	21	12	0.0003	0.0002	0.0002	3.782	0.064	185	46	0.0019	0.0005	0.0005
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	201	44	0.0021	0.0005	0.0005
1.285	0.012	0	0	0.0000	0.0000	0.0000	4.103	0.073	100	42	0.0011	0.0004	0.0005
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	134	45	0.0013	0.0004	0.0005
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	215	44	0.0022	0.0004	0.0005
1.378	0.014	0	5	0.0000	0.0000	0.0000	4.665	0.088	134	44	0.0014	0.0004	0.0005
1.412	0.014	5	29	0.0001	0.0004	0.0004	4.879	0.094	191	45	0.0019	0.0004	0.0005
1.447	0.015	178	35	0.0023	0.0005	0.0005	5.108	0.100	206	47	0.0020	0.0005	0.0005
1.483	0.016	151	35	0.0019	0.0005	0.0005	5.350	0.107	169	47	0.0017	0.0005	0.0005
1.522	0.016	267	39	0.0034	0.0005	0.0006	5.617	0.116	239	49	0.0024	0.0005	0.0006
1.560	0.017	345	41	0.0043	0.0005	0.0007	5.899	0.124	272	49	0.0027	0.0005	0.0006
1.601	0.017	493	46	0.0063	0.0006	0.0009	6.205	0.135	310	50	0.0030	0.0005	0.0006
1.642	0.018	491	44	0.0065	0.0006	0.0009	6.532	0.145	421	51	0.0041	0.0005	0.0007
1.687	0.019	391	42	0.0051	0.0006	0.0008	6.891	0.158	462	52	0.0046	0.0005	0.0007
1.733	0.020	345	41	0.0044	0.0005	0.0007	7.281	0.171	630	55	0.0062	0.0005	0.0009
1.780	0.020	371	45	0.0044	0.0005	0.0007	7.695	0.186	747	57	0.0074	0.0006	0.0010
1.830	0.021	381	45	0.0044	0.0005	0.0007	8.158	0.205	856	58	0.0088	0.0006	0.0011
1.882	0.023	362	47	0.0041	0.0005	0.0007	8.658	0.223	871	58	0.0089	0.0006	0.0011
1.935	0.023	251	43	0.0028	0.0005	0.0006	9.203	0.243	894	58	0.0094	0.0006	0.0012
1.991	0.024	116	40	0.0013	0.0005	0.0005	9.809	0.270	899	57	0.0099	0.0007	0.0012
2.050	0.026	195	40	0.0023	0.0005	0.0005	10.467	0.297	1007	58	0.0117	0.0007	0.0014
2.112	0.027	25	37	0.0003	0.0004	0.0004	11.208	0.326	1025	57	0.0124	0.0007	0.0015
2.176	0.028	24	35	0.0003	0.0004	0.0004	12.019	0.366	1155	58	0.0148	0.0008	0.0018
2.243	0.029	5	25	0.0001	0.0003	0.0003	12.933	0.403	984	55	0.0130	0.0008	0.0016
2.313	0.031	66	32	0.0008	0.0004	0.0004	13.961	0.457	925	52	0.0125	0.0007	0.0015
2.387	0.031	98	37	0.0011	0.0004	0.0004	15.094	0.512	509	46	0.0069	0.0006	0.0010
2.463	0.034	104	39	0.0012	0.0005	0.0005	16.403	0.589	278	42	0.0039	0.0006	0.0007
2.546	0.035	191	42	0.0022	0.0005	0.0005	17.862	0.685	215	42	0.0029	0.0006	0.0007
2.631	0.037	178	41	0.0020	0.0005	0.0005	19.551	0.691	46	41	0.0005	0.0005	0.0005

TABLE XXXV: Measured partial cross section for the E_γ = 1293.7–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	5	10	0.0001	0.0001	0.0001	2.719	0.039	42	20	0.0005	0.0002	0.0002
1.031	0.010	15	11	0.0002	0.0002	0.0002	2.815	0.041	50	21	0.0006	0.0002	0.0003
1.053	0.009	17	10	0.0003	0.0002	0.0002	2.913	0.043	11	20	0.0001	0.0002	0.0002
1.075	0.010	0	0	0.0000	0.0000	0.0000	3.019	0.045	41	23	0.0005	0.0003	0.0003
1.100	0.010	18	10	0.0003	0.0002	0.0002	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	30	26	0.0003	0.0003	0.0003
1.148	0.011	21	10	0.0003	0.0002	0.0002	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	11	9	0.0001	0.0001	0.0001	3.498	0.056	43	30	0.0005	0.0003	0.0003
1.198	0.012	28	10	0.0004	0.0001	0.0002	3.636	0.061	4	30	0.0000	0.0003	0.0003
1.227	0.012	21	9	0.0003	0.0001	0.0001	3.782	0.064	48	30	0.0005	0.0003	0.0003
1.256	0.012	28	10	0.0004	0.0001	0.0001	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	6	8	0.0001	0.0001	0.0001	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	0	7	0.0000	0.0000	0.0000	4.279	0.076	54	31	0.0006	0.0003	0.0003
1.346	0.014	14	9	0.0002	0.0001	0.0001	4.464	0.082	56	30	0.0006	0.0003	0.0003
1.378	0.014	34	10	0.0005	0.0001	0.0001	4.665	0.088	2	29	0.0000	0.0003	0.0003
1.412	0.014	45	11	0.0006	0.0002	0.0002	4.879	0.094	40	30	0.0004	0.0003	0.0003
1.447	0.015	39	10	0.0005	0.0001	0.0001	5.108	0.100	277	36	0.0028	0.0004	0.0005
1.483	0.016	50	11	0.0007	0.0002	0.0002	5.350	0.107	489	39	0.0051	0.0004	0.0007
1.522	0.016	33	10	0.0004	0.0001	0.0001	5.617	0.116	372	39	0.0039	0.0004	0.0006
1.560	0.017	66	12	0.0009	0.0002	0.0002	5.899	0.124	416	39	0.0043	0.0004	0.0006
1.601	0.017	60	12	0.0008	0.0002	0.0002	6.205	0.135	300	37	0.0031	0.0004	0.0005
1.642	0.018	94	14	0.0013	0.0002	0.0002	6.532	0.145	365	39	0.0038	0.0004	0.0006
1.687	0.019	69	13	0.0009	0.0002	0.0002	6.891	0.158	344	39	0.0036	0.0004	0.0006
1.733	0.020	72	13	0.0010	0.0002	0.0002	7.281	0.171	335	40	0.0035	0.0004	0.0006
1.780	0.020	81	14	0.0010	0.0002	0.0002	7.695	0.186	371	41	0.0039	0.0004	0.0006
1.830	0.021	79	14	0.0010	0.0002	0.0002	8.158	0.205	260	39	0.0028	0.0004	0.0005
1.882	0.023	66	14	0.0008	0.0002	0.0002	8.658	0.223	187	38	0.0020	0.0004	0.0005
1.935	0.023	38	13	0.0004	0.0002	0.0002	9.203	0.243	203	38	0.0023	0.0004	0.0005
1.991	0.024	33	13	0.0004	0.0002	0.0002	9.809	0.270	136	38	0.0016	0.0004	0.0005
2.050	0.026	33	14	0.0004	0.0002	0.0002	10.467	0.297	199	38	0.0024	0.0005	0.0005
2.112	0.027	39	15	0.0005	0.0002	0.0002	11.208	0.326	95	36	0.0012	0.0005	0.0005
2.176	0.028	28	14	0.0003	0.0002	0.0002	12.019	0.366	135	36	0.0018	0.0005	0.0005
2.243	0.029	24	13	0.0003	0.0002	0.0002	12.933	0.403	45	33	0.0006	0.0005	0.0005
2.313	0.031	5	12	0.0001	0.0001	0.0001	13.961	0.457	49	31	0.0007	0.0004	0.0005
2.387	0.031	46	16	0.0005	0.0002	0.0002	15.094	0.512	13	29	0.0002	0.0004	0.0004
2.463	0.034	14	16	0.0002	0.0002	0.0002	16.403	0.589	63	29	0.0009	0.0004	0.0004
2.546	0.035	54	19	0.0007	0.0002	0.0002	17.862	0.685	121	31	0.0017	0.0004	0.0005
2.631	0.037	18	19	0.0002	0.0002	0.0002	19.551	0.691	146	32	0.0018	0.0004	0.0004

TABLE XXXVI: Measured partial cross section for the E_γ = 1312.0–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	3457	64	0.0418	0.0012	0.0046
1.031	0.010	2	5	0.0000	0.0001	0.0001	2.815	0.041	4871	75	0.0581	0.0016	0.0064
1.053	0.009	1	7	0.0000	0.0001	0.0001	2.913	0.043	5647	80	0.0664	0.0018	0.0073
1.075	0.010	29	10	0.0005	0.0002	0.0002	3.019	0.045	6817	88	0.0785	0.0020	0.0086
1.100	0.010	21	10	0.0003	0.0002	0.0002	3.127	0.048	7794	94	0.0886	0.0022	0.0097
1.122	0.009	4	5	0.0001	0.0001	0.0001	3.245	0.052	10090	107	0.1182	0.0030	0.0130
1.148	0.011	28	9	0.0004	0.0001	0.0002	3.367	0.053	12270	117	0.1397	0.0033	0.0153
1.174	0.011	27	10	0.0003	0.0001	0.0001	3.498	0.056	12430	119	0.1389	0.0033	0.0152
1.198	0.012	40	11	0.0006	0.0002	0.0002	3.636	0.061	13740	124	0.1550	0.0037	0.0170
1.227	0.012	42	11	0.0006	0.0002	0.0002	3.782	0.064	14260	126	0.1565	0.0036	0.0171
1.256	0.012	32	10	0.0004	0.0001	0.0001	3.937	0.068	16220	134	0.1796	0.0041	0.0196
1.285	0.012	38	11	0.0004	0.0001	0.0001	4.103	0.073	17410	139	0.1959	0.0046	0.0214
1.314	0.013	58	12	0.0007	0.0002	0.0002	4.279	0.076	19870	148	0.2084	0.0046	0.0228
1.346	0.014	74	12	0.0010	0.0002	0.0002	4.464	0.082	21210	152	0.2259	0.0050	0.0247
1.378	0.014	74	12	0.0010	0.0002	0.0002	4.665	0.088	24000	162	0.2579	0.0057	0.0282
1.412	0.014	63	12	0.0009	0.0002	0.0002	4.879	0.094	25680	167	0.2713	0.0060	0.0296
1.447	0.015	58	11	0.0008	0.0002	0.0002	5.108	0.100	27340	172	0.2806	0.0060	0.0306
1.483	0.016	71	12	0.0010	0.0002	0.0002	5.350	0.107	29010	177	0.3011	0.0065	0.0329
1.522	0.016	66	12	0.0009	0.0002	0.0002	5.617	0.116	31100	184	0.3300	0.0072	0.0360
1.560	0.017	102	14	0.0013	0.0002	0.0002	5.899	0.124	33430	190	0.3466	0.0072	0.0378
1.601	0.017	84	13	0.0011	0.0002	0.0002	6.205	0.135	34870	194	0.3623	0.0069	0.0394
1.642	0.018	99	14	0.0014	0.0002	0.0003	6.532	0.145	36560	198	0.3777	0.0067	0.0409
1.687	0.019	82	13	0.0011	0.0002	0.0002	6.891	0.158	37570	201	0.3984	0.0068	0.0432
1.733	0.020	116	15	0.0016	0.0002	0.0003	7.281	0.171	37900	202	0.3936	0.0065	0.0426
1.780	0.020	94	14	0.0012	0.0002	0.0002	7.695	0.186	39260	206	0.4126	0.0066	0.0446
1.830	0.021	120	16	0.0015	0.0002	0.0003	8.158	0.205	39200	206	0.4274	0.0071	0.0463
1.882	0.023	99	16	0.0012	0.0002	0.0002	8.658	0.223	38460	204	0.4188	0.0070	0.0453
1.935	0.023	81	15	0.0010	0.0002	0.0002	9.203	0.243	38680	204	0.4326	0.0072	0.0468
1.991	0.024	54	13	0.0007	0.0002	0.0002	9.809	0.270	38500	204	0.4517	0.0078	0.0489
2.050	0.026	107	16	0.0014	0.0002	0.0003	10.467	0.297	37940	202	0.4656	0.0082	0.0505
2.112	0.027	64	15	0.0008	0.0002	0.0002	11.208	0.326	37550	201	0.4811	0.0087	0.0522
2.176	0.028	75	16	0.0009	0.0002	0.0002	12.019	0.366	35740	196	0.4847	0.0089	0.0526
2.243	0.029	51	14	0.0006	0.0002	0.0002	12.933	0.403	31210	184	0.4377	0.0082	0.0475
2.313	0.031	271	21	0.0033	0.0003	0.0004	13.961	0.457	23800	161	0.3420	0.0063	0.0371
2.387	0.031	964	35	0.0113	0.0005	0.0013	15.094	0.512	16950	136	0.2441	0.0044	0.0265
2.463	0.034	1115	38	0.0138	0.0006	0.0016	16.403	0.589	11940	116	0.1755	0.0033	0.0191
2.546	0.035	1994	50	0.0246	0.0008	0.0028	17.862	0.685	9269	103	0.1344	0.0026	0.0146
2.631	0.037	2935	59	0.0349	0.0011	0.0039	19.551	0.691	7453	94	0.0899	0.0018	0.0098

TABLE XXXVII: Measured partial cross section for the E_γ = 1317.4–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	41	23	0.0005	0.0003	0.0003
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	79	25	0.0009	0.0003	0.0003
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	50	25	0.0006	0.0003	0.0003
1.075	0.010	0	0	0.0000	0.0000	0.0000	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	5	9	0.0001	0.0001	0.0001	3.127	0.048	55	29	0.0006	0.0003	0.0003
1.122	0.009	0	2	0.0000	0.0000	0.0000	3.245	0.052	19	31	0.0002	0.0004	0.0004
1.148	0.011	0	0	0.0000	0.0000	0.0000	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	11	34	0.0001	0.0004	0.0004
1.198	0.012	13	9	0.0002	0.0001	0.0001	3.636	0.061	23	36	0.0003	0.0004	0.0004
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	99	36	0.0011	0.0004	0.0004
1.256	0.012	10	9	0.0001	0.0001	0.0001	3.937	0.068	217	39	0.0024	0.0004	0.0005
1.285	0.012	4	9	0.0000	0.0001	0.0001	4.103	0.073	224	40	0.0025	0.0005	0.0005
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	246	42	0.0026	0.0004	0.0005
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	306	43	0.0032	0.0005	0.0006
1.378	0.014	26	10	0.0004	0.0001	0.0001	4.665	0.088	312	44	0.0033	0.0005	0.0006
1.412	0.014	8	9	0.0001	0.0001	0.0001	4.879	0.094	345	45	0.0036	0.0005	0.0006
1.447	0.015	21	9	0.0003	0.0001	0.0001	5.108	0.100	348	46	0.0036	0.0005	0.0006
1.483	0.016	10	9	0.0001	0.0001	0.0001	5.350	0.107	296	46	0.0031	0.0005	0.0006
1.522	0.016	23	10	0.0003	0.0001	0.0001	5.617	0.116	380	49	0.0040	0.0005	0.0007
1.560	0.017	5	9	0.0001	0.0001	0.0001	5.899	0.124	297	48	0.0031	0.0005	0.0006
1.601	0.017	24	11	0.0003	0.0001	0.0002	6.205	0.135	296	49	0.0031	0.0005	0.0006
1.642	0.018	14	10	0.0002	0.0001	0.0001	6.532	0.145	242	48	0.0025	0.0005	0.0006
1.687	0.019	15	10	0.0002	0.0001	0.0001	6.891	0.158	244	50	0.0026	0.0005	0.0006
1.733	0.020	35	12	0.0005	0.0002	0.0002	7.281	0.171	160	49	0.0017	0.0005	0.0005
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	222	51	0.0023	0.0005	0.0006
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	205	50	0.0022	0.0005	0.0006
1.882	0.023	4	12	0.0000	0.0001	0.0001	8.658	0.223	116	49	0.0013	0.0005	0.0005
1.935	0.023	25	13	0.0003	0.0002	0.0002	9.203	0.243	161	50	0.0018	0.0006	0.0006
1.991	0.024	18	13	0.0002	0.0002	0.0002	9.809	0.270	158	50	0.0018	0.0006	0.0006
2.050	0.026	34	14	0.0004	0.0002	0.0002	10.467	0.297	139	48	0.0017	0.0006	0.0006
2.112	0.027	46	15	0.0006	0.0002	0.0002	11.208	0.326	85	47	0.0011	0.0006	0.0006
2.176	0.028	52	15	0.0006	0.0002	0.0002	12.019	0.366	95	47	0.0013	0.0006	0.0007
2.243	0.029	24	13	0.0003	0.0002	0.0002	12.933	0.403	125	45	0.0017	0.0006	0.0007
2.313	0.031	27	14	0.0003	0.0002	0.0002	13.961	0.457	122	41	0.0017	0.0006	0.0006
2.387	0.031	17	16	0.0002	0.0002	0.0002	15.094	0.512	74	36	0.0011	0.0005	0.0005
2.463	0.034	17	17	0.0002	0.0002	0.0002	16.403	0.589	166	35	0.0024	0.0005	0.0006
2.546	0.035	34	20	0.0004	0.0002	0.0003	17.862	0.685	163	35	0.0024	0.0005	0.0006
2.631	0.037	19	21	0.0002	0.0002	0.0003	19.551	0.691	153	34	0.0018	0.0004	0.0005

TABLE XXXVIII: Measured partial cross section for the E_γ = 1437.4–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	14470	124	0.1857	0.0045	0.0204
1.031	0.010	20	11	0.0003	0.0002	0.0002	2.815	0.041	12750	117	0.1613	0.0040	0.0177
1.053	0.009	1	9	0.0000	0.0002	0.0002	2.913	0.043	13080	118	0.1630	0.0039	0.0179
1.075	0.010	5	7	0.0001	0.0001	0.0001	3.019	0.045	16570	133	0.2023	0.0048	0.0222
1.100	0.010	14	10	0.0002	0.0002	0.0002	3.127	0.048	17280	136	0.2083	0.0049	0.0228
1.122	0.009	9	8	0.0001	0.0001	0.0001	3.245	0.052	17330	137	0.2153	0.0052	0.0236
1.148	0.011	4	5	0.0001	0.0001	0.0001	3.367	0.053	18630	142	0.2249	0.0052	0.0246
1.174	0.011	9	9	0.0001	0.0001	0.0001	3.498	0.056	19550	152	0.2317	0.0054	0.0254
1.198	0.012	3	6	0.0000	0.0001	0.0001	3.636	0.061	19350	151	0.2315	0.0054	0.0253
1.227	0.012	5	9	0.0001	0.0001	0.0001	3.782	0.064	17860	145	0.2079	0.0047	0.0227
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	18000	145	0.2113	0.0048	0.0231
1.285	0.012	0	2	0.0000	0.0000	0.0000	4.103	0.073	16730	140	0.1995	0.0047	0.0218
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	17570	145	0.1954	0.0043	0.0213
1.346	0.014	18	10	0.0003	0.0001	0.0001	4.464	0.082	17050	142	0.1926	0.0043	0.0210
1.378	0.014	17	10	0.0002	0.0001	0.0001	4.665	0.088	15830	137	0.1804	0.0041	0.0197
1.412	0.014	8	9	0.0001	0.0001	0.0001	4.879	0.094	15840	138	0.1775	0.0041	0.0194
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	15100	135	0.1643	0.0037	0.0180
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	14850	134	0.1634	0.0037	0.0179
1.522	0.016	29	11	0.0004	0.0002	0.0002	5.617	0.116	14670	134	0.1650	0.0038	0.0180
1.560	0.017	31	11	0.0004	0.0002	0.0002	5.899	0.124	14370	132	0.1580	0.0035	0.0173
1.601	0.017	45	12	0.0006	0.0002	0.0002	6.205	0.135	14410	133	0.1588	0.0032	0.0173
1.642	0.018	38	12	0.0006	0.0002	0.0002	6.532	0.145	14360	133	0.1573	0.0030	0.0171
1.687	0.019	46	12	0.0007	0.0002	0.0002	6.891	0.158	13530	130	0.1522	0.0029	0.0165
1.733	0.020	25	11	0.0004	0.0002	0.0002	7.281	0.171	13020	128	0.1434	0.0027	0.0156
1.780	0.020	73	14	0.0010	0.0002	0.0002	7.695	0.186	12210	124	0.1360	0.0025	0.0148
1.830	0.021	91	15	0.0012	0.0002	0.0002	8.158	0.205	11800	122	0.1364	0.0026	0.0148
1.882	0.023	10	10	0.0001	0.0001	0.0001	8.658	0.223	10550	117	0.1219	0.0024	0.0132
1.935	0.023	54	15	0.0007	0.0002	0.0002	9.203	0.243	9704	112	0.1151	0.0022	0.0125
1.991	0.024	63	15	0.0008	0.0002	0.0002	9.809	0.270	8714	107	0.1084	0.0022	0.0118
2.050	0.026	37	15	0.0005	0.0002	0.0002	10.467	0.297	7713	101	0.1004	0.0021	0.0110
2.112	0.027	76	16	0.0010	0.0002	0.0002	11.208	0.326	6876	97	0.0934	0.0021	0.0102
2.176	0.028	83	17	0.0011	0.0002	0.0002	12.019	0.366	6145	92	0.0884	0.0020	0.0097
2.243	0.029	52	16	0.0007	0.0002	0.0002	12.933	0.403	4735	82	0.0704	0.0017	0.0077
2.313	0.031	53	15	0.0007	0.0002	0.0002	13.961	0.457	3295	70	0.0502	0.0014	0.0055
2.387	0.031	198	21	0.0025	0.0003	0.0004	15.094	0.512	2288	61	0.0349	0.0011	0.0039
2.463	0.034	3048	59	0.0401	0.0012	0.0045	16.403	0.589	1499	52	0.0234	0.0009	0.0027
2.546	0.035	9723	102	0.1273	0.0032	0.0140	17.862	0.685	1189	49	0.0183	0.0008	0.0021
2.631	0.037	11980	113	0.1510	0.0037	0.0166	19.551	0.691	938	47	0.0120	0.0006	0.0014

TABLE XXXIX: Measured partial cross section for the E_γ = 1479.3–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	4	15	0.0001	0.0002	0.0002	2.719	0.039	168	45	0.0022	0.0006	0.0006
1.031	0.010	40	18	0.0007	0.0003	0.0003	2.815	0.041	116	52	0.0015	0.0007	0.0007
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	138	52	0.0018	0.0007	0.0007
1.075	0.010	17	15	0.0003	0.0003	0.0003	3.019	0.045	155	54	0.0019	0.0007	0.0007
1.100	0.010	8	15	0.0001	0.0003	0.0003	3.127	0.048	113	57	0.0014	0.0007	0.0007
1.122	0.009	1	5	0.0000	0.0001	0.0001	3.245	0.052	59	63	0.0008	0.0008	0.0008
1.148	0.011	31	16	0.0005	0.0003	0.0003	3.367	0.053	47	69	0.0006	0.0009	0.0009
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	51	70	0.0006	0.0008	0.0009
1.198	0.012	5	13	0.0001	0.0002	0.0002	3.636	0.061	94	73	0.0012	0.0009	0.0009
1.227	0.012	24	13	0.0004	0.0002	0.0002	3.782	0.064	9	62	0.0001	0.0007	0.0007
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	63	65	0.0008	0.0008	0.0008
1.285	0.012	0	2	0.0000	0.0000	0.0000	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	1	10	0.0000	0.0001	0.0001	4.279	0.076	83	68	0.0009	0.0008	0.0008
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	48	65	0.0006	0.0008	0.0008
1.378	0.014	13	13	0.0002	0.0002	0.0002	4.665	0.088	89	64	0.0010	0.0007	0.0008
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	306	69	0.0035	0.0008	0.0009
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	550	74	0.0061	0.0008	0.0011
1.483	0.016	4	16	0.0001	0.0002	0.0002	5.350	0.107	680	76	0.0077	0.0009	0.0012
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	810	79	0.0093	0.0009	0.0014
1.560	0.017	34	19	0.0005	0.0003	0.0003	5.899	0.124	1236	83	0.0139	0.0010	0.0018
1.601	0.017	35	19	0.0005	0.0003	0.0003	6.205	0.135	1061	82	0.0120	0.0010	0.0016
1.642	0.018	30	19	0.0005	0.0003	0.0003	6.532	0.145	1281	82	0.0144	0.0010	0.0018
1.687	0.019	45	22	0.0007	0.0003	0.0003	6.891	0.158	1100	82	0.0127	0.0010	0.0017
1.733	0.020	49	23	0.0007	0.0003	0.0003	7.281	0.171	1158	87	0.0131	0.0010	0.0017
1.780	0.020	190	29	0.0026	0.0004	0.0005	7.695	0.186	1186	86	0.0135	0.0010	0.0018
1.830	0.021	353	33	0.0047	0.0005	0.0007	8.158	0.205	1186	86	0.0140	0.0010	0.0018
1.882	0.023	382	37	0.0049	0.0005	0.0007	8.658	0.223	1120	88	0.0132	0.0011	0.0018
1.935	0.023	388	38	0.0050	0.0005	0.0007	9.203	0.243	944	86	0.0115	0.0011	0.0016
1.991	0.024	449	40	0.0059	0.0005	0.0008	9.809	0.270	948	85	0.0121	0.0011	0.0017
2.050	0.026	474	42	0.0065	0.0006	0.0009	10.467	0.297	857	80	0.0114	0.0011	0.0016
2.112	0.027	701	44	0.0094	0.0006	0.0012	11.208	0.326	599	79	0.0083	0.0011	0.0014
2.176	0.028	516	42	0.0067	0.0006	0.0009	12.019	0.366	675	79	0.0099	0.0012	0.0016
2.243	0.029	353	37	0.0046	0.0005	0.0007	12.933	0.403	603	74	0.0092	0.0011	0.0015
2.313	0.031	287	36	0.0038	0.0005	0.0006	13.961	0.457	461	70	0.0072	0.0011	0.0013
2.387	0.031	358	44	0.0046	0.0006	0.0008	15.094	0.512	328	64	0.0051	0.0010	0.0011
2.463	0.034	370	45	0.0050	0.0006	0.0008	16.403	0.589	144	61	0.0023	0.0010	0.0010
2.546	0.035	302	47	0.0040	0.0006	0.0008	17.862	0.685	93	61	0.0015	0.0010	0.0010
2.631	0.037	261	49	0.0034	0.0006	0.0007	19.551	0.691	130	62	0.0017	0.0008	0.0008

TABLE XL: Measured partial cross section for the E_γ = 1486.6–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	7	8	0.0001	0.0001	0.0001	2.719	0.039	77	26	0.0010	0.0003	0.0004
1.031	0.010	3	8	0.0000	0.0001	0.0001	2.815	0.041	51	28	0.0007	0.0004	0.0004
1.053	0.009	12	9	0.0002	0.0002	0.0002	2.913	0.043	95	29	0.0012	0.0004	0.0004
1.075	0.010	7	9	0.0001	0.0002	0.0002	3.019	0.045	68	30	0.0009	0.0004	0.0004
1.100	0.010	0	3	0.0000	0.0000	0.0000	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	0	3	0.0000	0.0000	0.0000	3.245	0.052	17	33	0.0002	0.0004	0.0004
1.148	0.011	11	9	0.0002	0.0002	0.0002	3.367	0.053	51	36	0.0006	0.0004	0.0005
1.174	0.011	6	8	0.0001	0.0001	0.0001	3.498	0.056	10	37	0.0001	0.0005	0.0005
1.198	0.012	1	6	0.0000	0.0001	0.0001	3.636	0.061	33	38	0.0004	0.0005	0.0005
1.227	0.012	24	9	0.0004	0.0001	0.0002	3.782	0.064	34	35	0.0004	0.0004	0.0004
1.256	0.012	7	8	0.0001	0.0001	0.0001	3.937	0.068	342	40	0.0041	0.0005	0.0007
1.285	0.012	6	9	0.0001	0.0001	0.0001	4.103	0.073	414	39	0.0051	0.0005	0.0007
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	647	45	0.0074	0.0005	0.0010
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	620	44	0.0072	0.0005	0.0009
1.378	0.014	6	8	0.0001	0.0001	0.0001	4.665	0.088	680	44	0.0080	0.0005	0.0010
1.412	0.014	7	9	0.0001	0.0001	0.0001	4.879	0.094	734	45	0.0084	0.0005	0.0011
1.447	0.015	1	7	0.0000	0.0001	0.0001	5.108	0.100	742	46	0.0083	0.0005	0.0010
1.483	0.016	12	9	0.0002	0.0001	0.0001	5.350	0.107	722	47	0.0082	0.0006	0.0010
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	781	49	0.0090	0.0006	0.0011
1.560	0.017	10	10	0.0001	0.0001	0.0001	5.899	0.124	824	49	0.0093	0.0006	0.0012
1.601	0.017	11	11	0.0002	0.0002	0.0002	6.205	0.135	822	49	0.0093	0.0006	0.0012
1.642	0.018	31	12	0.0005	0.0002	0.0002	6.532	0.145	922	50	0.0104	0.0006	0.0013
1.687	0.019	45	13	0.0007	0.0002	0.0002	6.891	0.158	906	50	0.0105	0.0006	0.0013
1.733	0.020	73	15	0.0011	0.0002	0.0002	7.281	0.171	875	52	0.0099	0.0006	0.0012
1.780	0.020	56	15	0.0008	0.0002	0.0002	7.695	0.186	968	53	0.0111	0.0006	0.0013
1.830	0.021	52	17	0.0007	0.0002	0.0002	8.158	0.205	1008	53	0.0120	0.0007	0.0014
1.882	0.023	34	18	0.0004	0.0002	0.0002	8.658	0.223	1004	54	0.0119	0.0007	0.0014
1.935	0.023	67	20	0.0009	0.0003	0.0003	9.203	0.243	967	54	0.0118	0.0007	0.0014
1.991	0.024	40	19	0.0005	0.0003	0.0003	9.809	0.270	933	53	0.0119	0.0007	0.0015
2.050	0.026	56	21	0.0008	0.0003	0.0003	10.467	0.297	965	52	0.0129	0.0007	0.0016
2.112	0.027	94	22	0.0013	0.0003	0.0003	11.208	0.326	907	51	0.0126	0.0007	0.0015
2.176	0.028	53	21	0.0007	0.0003	0.0003	12.019	0.366	886	50	0.0131	0.0008	0.0016
2.243	0.029	54	19	0.0007	0.0002	0.0003	12.933	0.403	723	46	0.0110	0.0007	0.0014
2.313	0.031	73	20	0.0010	0.0003	0.0003	13.961	0.457	552	43	0.0086	0.0007	0.0012
2.387	0.031	128	25	0.0016	0.0003	0.0004	15.094	0.512	403	39	0.0063	0.0006	0.0009
2.463	0.034	142	26	0.0019	0.0004	0.0004	16.403	0.589	272	36	0.0044	0.0006	0.0007
2.546	0.035	124	27	0.0017	0.0004	0.0004	17.862	0.685	146	34	0.0023	0.0005	0.0006
2.631	0.037	136	27	0.0018	0.0004	0.0004	19.551	0.691	147	34	0.0019	0.0004	0.0005

TABLE XLI: Measured partial cross section for the E_γ = 1540.4–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	48	12	0.0006	0.0002	0.0002	2.719	0.039	109	25	0.0015	0.0003	0.0004
1.031	0.010	56	12	0.0010	0.0002	0.0003	2.815	0.041	166	27	0.0022	0.0004	0.0004
1.053	0.009	34	12	0.0006	0.0002	0.0002	2.913	0.043	142	27	0.0019	0.0004	0.0004
1.075	0.010	42	13	0.0009	0.0003	0.0003	3.019	0.045	141	30	0.0018	0.0004	0.0004
1.100	0.010	27	12	0.0005	0.0002	0.0002	3.127	0.048	201	33	0.0026	0.0004	0.0005
1.122	0.009	26	12	0.0004	0.0002	0.0002	3.245	0.052	168	35	0.0022	0.0005	0.0005
1.148	0.011	48	13	0.0008	0.0002	0.0003	3.367	0.053	125	37	0.0016	0.0005	0.0005
1.174	0.011	23	12	0.0003	0.0002	0.0002	3.498	0.056	224	42	0.0028	0.0005	0.0006
1.198	0.012	43	13	0.0007	0.0002	0.0002	3.636	0.061	192	42	0.0024	0.0005	0.0006
1.227	0.012	10	12	0.0002	0.0002	0.0002	3.782	0.064	189	41	0.0023	0.0005	0.0006
1.256	0.012	12	12	0.0002	0.0002	0.0002	3.937	0.068	186	40	0.0023	0.0005	0.0006
1.285	0.012	14	13	0.0002	0.0002	0.0002	4.103	0.073	203	41	0.0026	0.0005	0.0006
1.314	0.013	14	12	0.0002	0.0002	0.0002	4.279	0.076	169	43	0.0020	0.0005	0.0006
1.346	0.014	12	12	0.0002	0.0002	0.0002	4.464	0.082	177	42	0.0021	0.0005	0.0006
1.378	0.014	19	13	0.0003	0.0002	0.0002	4.665	0.088	233	43	0.0028	0.0005	0.0006
1.412	0.014	24	13	0.0004	0.0002	0.0002	4.879	0.094	129	42	0.0015	0.0005	0.0005
1.447	0.015	10	12	0.0002	0.0002	0.0002	5.108	0.100	535	49	0.0062	0.0006	0.0009
1.483	0.016	7	12	0.0001	0.0002	0.0002	5.350	0.107	696	52	0.0081	0.0006	0.0011
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	753	54	0.0090	0.0007	0.0012
1.560	0.017	5	12	0.0001	0.0002	0.0002	5.899	0.124	631	53	0.0073	0.0006	0.0010
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	617	53	0.0072	0.0006	0.0010
1.642	0.018	33	14	0.0005	0.0002	0.0002	6.532	0.145	601	54	0.0070	0.0006	0.0010
1.687	0.019	43	15	0.0007	0.0002	0.0002	6.891	0.158	579	55	0.0069	0.0007	0.0010
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	633	57	0.0074	0.0007	0.0010
1.780	0.020	15	14	0.0002	0.0002	0.0002	7.695	0.186	745	58	0.0088	0.0007	0.0012
1.830	0.021	17	14	0.0002	0.0002	0.0002	8.158	0.205	503	56	0.0062	0.0007	0.0010
1.882	0.023	89	17	0.0012	0.0002	0.0003	8.658	0.223	461	56	0.0056	0.0007	0.0009
1.935	0.023	74	17	0.0010	0.0002	0.0003	9.203	0.243	339	54	0.0043	0.0007	0.0008
1.991	0.024	117	19	0.0016	0.0003	0.0003	9.809	0.270	366	55	0.0048	0.0007	0.0009
2.050	0.026	136	20	0.0019	0.0003	0.0004	10.467	0.297	315	53	0.0043	0.0007	0.0009
2.112	0.027	95	19	0.0013	0.0003	0.0003	11.208	0.326	280	53	0.0040	0.0008	0.0009
2.176	0.028	43	18	0.0006	0.0002	0.0003	12.019	0.366	254	51	0.0039	0.0008	0.0009
2.243	0.029	51	18	0.0007	0.0002	0.0003	12.933	0.403	288	50	0.0045	0.0008	0.0009
2.313	0.031	41	17	0.0006	0.0002	0.0002	13.961	0.457	145	45	0.0023	0.0007	0.0008
2.387	0.031	85	21	0.0011	0.0003	0.0003	15.094	0.512	150	43	0.0024	0.0007	0.0007
2.463	0.034	76	21	0.0011	0.0003	0.0003	16.403	0.589	150	42	0.0025	0.0007	0.0007
2.546	0.035	115	23	0.0016	0.0003	0.0004	17.862	0.685	34	41	0.0006	0.0007	0.0007
2.631	0.037	112	24	0.0015	0.0003	0.0004	19.551	0.691	8	42	0.0001	0.0006	0.0006

TABLE XLII: Measured partial cross section for the $E_\gamma = 1556.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	26	10	0.0004	0.0001	0.0001	2.719	0.039	88	20	0.0012	0.0003	0.0003
1.031	0.010	59	11	0.0010	0.0002	0.0003	2.815	0.041	80	21	0.0011	0.0003	0.0003
1.053	0.009	20	10	0.0004	0.0002	0.0002	2.913	0.043	158	24	0.0021	0.0003	0.0004
1.075	0.010	14	9	0.0003	0.0002	0.0002	3.019	0.045	134	25	0.0018	0.0003	0.0004
1.100	0.010	17	9	0.0003	0.0002	0.0002	3.127	0.048	96	26	0.0013	0.0003	0.0004
1.122	0.009	7	9	0.0001	0.0001	0.0001	3.245	0.052	133	29	0.0018	0.0004	0.0004
1.148	0.011	3	7	0.0001	0.0001	0.0001	3.367	0.053	134	32	0.0018	0.0004	0.0005
1.174	0.011	7	10	0.0001	0.0001	0.0001	3.498	0.056	207	35	0.0027	0.0005	0.0005
1.198	0.012	11	10	0.0002	0.0002	0.0002	3.636	0.061	199	36	0.0026	0.0005	0.0005
1.227	0.012	8	10	0.0001	0.0002	0.0002	3.782	0.064	207	36	0.0026	0.0005	0.0005
1.256	0.012	11	10	0.0002	0.0002	0.0002	3.937	0.068	397	38	0.0051	0.0005	0.0007
1.285	0.012	10	10	0.0001	0.0001	0.0001	4.103	0.073	790	45	0.0102	0.0006	0.0013
1.314	0.013	5	10	0.0001	0.0001	0.0001	4.279	0.076	944	48	0.0114	0.0006	0.0014
1.346	0.014	1	6	0.0000	0.0001	0.0001	4.464	0.082	952	48	0.0117	0.0006	0.0014
1.378	0.014	0	2	0.0000	0.0000	0.0000	4.665	0.088	1150	50	0.0142	0.0007	0.0017
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	1230	51	0.0150	0.0007	0.0017
1.447	0.015	0	4	0.0000	0.0000	0.0000	5.108	0.100	1401	54	0.0165	0.0007	0.0019
1.483	0.016	1	9	0.0000	0.0001	0.0001	5.350	0.107	1559	56	0.0186	0.0008	0.0021
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	1543	57	0.0188	0.0008	0.0022
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	1605	57	0.0192	0.0008	0.0022
1.601	0.017	15	11	0.0002	0.0002	0.0002	6.205	0.135	1705	58	0.0204	0.0008	0.0023
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	1605	58	0.0191	0.0008	0.0022
1.687	0.019	7	11	0.0001	0.0002	0.0002	6.891	0.158	1625	59	0.0198	0.0008	0.0023
1.733	0.020	20	12	0.0003	0.0002	0.0002	7.281	0.171	1440	59	0.0172	0.0008	0.0020
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	1471	59	0.0178	0.0008	0.0021
1.830	0.021	58	14	0.0008	0.0002	0.0002	8.158	0.205	1357	58	0.0170	0.0008	0.0020
1.882	0.023	75	15	0.0010	0.0002	0.0002	8.658	0.223	1284	57	0.0161	0.0008	0.0019
1.935	0.023	68	15	0.0009	0.0002	0.0002	9.203	0.243	1097	55	0.0141	0.0007	0.0017
1.991	0.024	95	16	0.0013	0.0002	0.0003	9.809	0.270	993	54	0.0134	0.0008	0.0016
2.050	0.026	89	16	0.0013	0.0002	0.0003	10.467	0.297	999	54	0.0141	0.0008	0.0017
2.112	0.027	82	16	0.0012	0.0002	0.0003	11.208	0.326	1062	54	0.0157	0.0008	0.0019
2.176	0.028	101	17	0.0014	0.0002	0.0003	12.019	0.366	1024	52	0.0160	0.0009	0.0019
2.243	0.029	86	16	0.0012	0.0002	0.0003	12.933	0.403	819	49	0.0132	0.0008	0.0016
2.313	0.031	60	15	0.0008	0.0002	0.0002	13.961	0.457	702	46	0.0116	0.0008	0.0015
2.387	0.031	88	18	0.0012	0.0002	0.0003	15.094	0.512	542	43	0.0090	0.0007	0.0012
2.463	0.034	122	19	0.0017	0.0003	0.0003	16.403	0.589	418	40	0.0071	0.0007	0.0010
2.546	0.035	153	21	0.0022	0.0003	0.0004	17.862	0.685	423	40	0.0071	0.0007	0.0010
2.631	0.037	141	22	0.0019	0.0003	0.0004	19.551	0.691	497	42	0.0069	0.0006	0.0009

TABLE XLIII: Measured partial cross section for the $E_\gamma = 1614.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	49	10	0.0007	0.0002	0.0002	2.719	0.039	93	21	0.0013	0.0003	0.0003
1.031	0.010	49	10	0.0009	0.0002	0.0002	2.815	0.041	79	21	0.0011	0.0003	0.0003
1.053	0.009	36	10	0.0007	0.0002	0.0002	2.913	0.043	65	22	0.0009	0.0003	0.0003
1.075	0.010	38	10	0.0008	0.0002	0.0002	3.019	0.045	77	24	0.0010	0.0003	0.0003
1.100	0.010	28	10	0.0005	0.0002	0.0002	3.127	0.048	112	27	0.0015	0.0004	0.0004
1.122	0.009	10	8	0.0002	0.0001	0.0001	3.245	0.052	91	29	0.0012	0.0004	0.0004
1.148	0.011	11	8	0.0002	0.0001	0.0001	3.367	0.053	25	30	0.0003	0.0004	0.0004
1.174	0.011	11	8	0.0002	0.0001	0.0001	3.498	0.056	64	32	0.0008	0.0004	0.0004
1.198	0.012	29	9	0.0005	0.0002	0.0002	3.636	0.061	95	34	0.0012	0.0004	0.0005
1.227	0.012	26	9	0.0004	0.0002	0.0002	3.782	0.064	89	32	0.0011	0.0004	0.0004
1.256	0.012	26	10	0.0004	0.0002	0.0002	3.937	0.068	38	31	0.0005	0.0004	0.0004
1.285	0.012	19	10	0.0003	0.0001	0.0001	4.103	0.073	539	40	0.0070	0.0005	0.0009
1.314	0.013	12	9	0.0002	0.0001	0.0001	4.279	0.076	1755	56	0.0213	0.0008	0.0024
1.346	0.014	0	4	0.0000	0.0000	0.0000	4.464	0.082	2065	59	0.0255	0.0009	0.0029
1.378	0.014	0	1	0.0000	0.0000	0.0000	4.665	0.088	2106	59	0.0262	0.0009	0.0029
1.412	0.014	10	10	0.0002	0.0002	0.0002	4.879	0.094	2000	58	0.0245	0.0009	0.0028
1.447	0.015	5	9	0.0001	0.0001	0.0001	5.108	0.100	2385	62	0.0283	0.0009	0.0032
1.483	0.016	27	10	0.0004	0.0002	0.0002	5.350	0.107	2496	63	0.0300	0.0010	0.0034
1.522	0.016	44	11	0.0007	0.0002	0.0002	5.617	0.116	2380	64	0.0292	0.0010	0.0033
1.560	0.017	26	10	0.0004	0.0002	0.0002	5.899	0.124	2057	61	0.0247	0.0009	0.0028
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	2131	61	0.0256	0.0009	0.0029
1.642	0.018	25	11	0.0004	0.0002	0.0002	6.532	0.145	1838	58	0.0220	0.0008	0.0025
1.687	0.019	5	10	0.0001	0.0002	0.0002	6.891	0.158	1729	58	0.0212	0.0008	0.0024
1.733	0.020	7	10	0.0001	0.0002	0.0002	7.281	0.171	1472	57	0.0177	0.0007	0.0020
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	1373	56	0.0167	0.0007	0.0019
1.830	0.021	35	12	0.0005	0.0002	0.0002	8.158	0.205	1262	55	0.0159	0.0007	0.0019
1.882	0.023	30	13	0.0004	0.0002	0.0002	8.658	0.223	1138	54	0.0143	0.0007	0.0017
1.935	0.023	46	14	0.0006	0.0002	0.0002	9.203	0.243	952	51	0.0123	0.0007	0.0015
1.991	0.024	14	13	0.0002	0.0002	0.0002	9.809	0.270	1040	52	0.0141	0.0007	0.0017
2.050	0.026	40	14	0.0006	0.0002	0.0002	10.467	0.297	786	49	0.0112	0.0007	0.0014
2.112	0.027	53	15	0.0008	0.0002	0.0002	11.208	0.326	690	47	0.0102	0.0007	0.0013
2.176	0.028	43	15	0.0006	0.0002	0.0002	12.019	0.366	766	47	0.0120	0.0008	0.0015
2.243	0.029	66	16	0.0009	0.0002	0.0002	12.933	0.403	507	43	0.0082	0.0007	0.0011
2.313	0.031	55	16	0.0008	0.0002	0.0002	13.961	0.457	330	38	0.0055	0.0006	0.0009
2.387	0.031	77	18	0.0010	0.0002	0.0003	15.094	0.512	262	36	0.0044	0.0006	0.0008
2.463	0.034	85	19	0.0012	0.0003	0.0003	16.403	0.589	170	34	0.0029	0.0006	0.0007
2.546	0.035	67	19	0.0010	0.0003	0.0003	17.862	0.685	197	35	0.0033	0.0006	0.0007
2.631	0.037	79	20	0.0011	0.0003	0.0003	19.551	0.691	194	35	0.0027	0.0005	0.0006

TABLE XLIV: Measured partial cross section for the $E_\gamma = 1621.2$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	90	12	0.0012	0.0002	0.0003	2.719	0.039	145	22	0.0020	0.0003	0.0004
1.031	0.010	96	13	0.0017	0.0003	0.0004	2.815	0.041	251	25	0.0035	0.0004	0.0005
1.053	0.009	46	11	0.0008	0.0002	0.0002	2.913	0.043	215	25	0.0029	0.0003	0.0005
1.075	0.010	54	12	0.0011	0.0003	0.0003	3.019	0.045	244	28	0.0032	0.0004	0.0005
1.100	0.010	63	12	0.0012	0.0003	0.0003	3.127	0.048	264	30	0.0035	0.0004	0.0005
1.122	0.009	50	12	0.0008	0.0002	0.0002	3.245	0.052	277	33	0.0037	0.0005	0.0006
1.148	0.011	30	11	0.0005	0.0002	0.0002	3.367	0.053	269	35	0.0035	0.0005	0.0006
1.174	0.011	33	11	0.0005	0.0002	0.0002	3.498	0.056	295	38	0.0038	0.0005	0.0006
1.198	0.012	53	11	0.0009	0.0002	0.0002	3.636	0.061	292	39	0.0038	0.0005	0.0007
1.227	0.012	19	10	0.0003	0.0002	0.0002	3.782	0.064	275	37	0.0035	0.0005	0.0006
1.256	0.012	29	11	0.0004	0.0002	0.0002	3.937	0.068	243	36	0.0031	0.0005	0.0006
1.285	0.012	30	11	0.0004	0.0002	0.0002	4.103	0.073	139	35	0.0018	0.0005	0.0005
1.314	0.013	34	12	0.0005	0.0002	0.0002	4.279	0.076	213	40	0.0026	0.0005	0.0006
1.346	0.014	8	10	0.0001	0.0002	0.0002	4.464	0.082	230	39	0.0028	0.0005	0.0006
1.378	0.014	41	12	0.0006	0.0002	0.0002	4.665	0.088	210	39	0.0026	0.0005	0.0006
1.412	0.014	20	11	0.0003	0.0002	0.0002	4.879	0.094	238	40	0.0029	0.0005	0.0006
1.447	0.015	22	11	0.0003	0.0002	0.0002	5.108	0.100	336	42	0.0040	0.0005	0.0007
1.483	0.016	19	11	0.0003	0.0002	0.0002	5.350	0.107	405	44	0.0049	0.0005	0.0007
1.522	0.016	4	9	0.0001	0.0001	0.0001	5.617	0.116	503	47	0.0062	0.0006	0.0009
1.560	0.017	4	10	0.0001	0.0002	0.0002	5.899	0.124	612	48	0.0073	0.0006	0.0010
1.601	0.017	3	11	0.0000	0.0002	0.0002	6.205	0.135	565	48	0.0068	0.0006	0.0009
1.642	0.018	18	12	0.0003	0.0002	0.0002	6.532	0.145	660	49	0.0079	0.0006	0.0010
1.687	0.019	14	11	0.0002	0.0002	0.0002	6.891	0.158	723	51	0.0089	0.0006	0.0011
1.733	0.020	43	13	0.0007	0.0002	0.0002	7.281	0.171	660	52	0.0079	0.0006	0.0011
1.780	0.020	55	13	0.0008	0.0002	0.0002	7.695	0.186	638	52	0.0077	0.0006	0.0010
1.830	0.021	60	14	0.0008	0.0002	0.0002	8.158	0.205	660	52	0.0083	0.0007	0.0011
1.882	0.023	105	16	0.0014	0.0002	0.0003	8.658	0.223	688	53	0.0086	0.0007	0.0011
1.935	0.023	96	16	0.0013	0.0002	0.0003	9.203	0.243	606	51	0.0078	0.0007	0.0011
1.991	0.024	116	17	0.0016	0.0002	0.0003	9.809	0.270	558	51	0.0076	0.0007	0.0011
2.050	0.026	125	17	0.0018	0.0003	0.0003	10.467	0.297	622	51	0.0088	0.0007	0.0012
2.112	0.027	158	18	0.0023	0.0003	0.0004	11.208	0.326	616	51	0.0091	0.0008	0.0012
2.176	0.028	85	17	0.0012	0.0002	0.0003	12.019	0.366	582	50	0.0091	0.0008	0.0013
2.243	0.029	59	16	0.0008	0.0002	0.0002	12.933	0.403	535	47	0.0087	0.0008	0.0012
2.313	0.031	113	18	0.0016	0.0003	0.0003	13.961	0.457	420	44	0.0070	0.0007	0.0011
2.387	0.031	100	19	0.0014	0.0003	0.0003	15.094	0.512	244	39	0.0041	0.0007	0.0008
2.463	0.034	142	20	0.0020	0.0003	0.0004	16.403	0.589	221	38	0.0038	0.0006	0.0008
2.546	0.035	177	22	0.0025	0.0003	0.0004	17.862	0.685	161	38	0.0027	0.0006	0.0007
2.631	0.037	197	23	0.0027	0.0003	0.0004	19.551	0.691	127	38	0.0018	0.0005	0.0006

TABLE XLV: Measured partial cross section for the E_γ = 1686.7–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	26	7	0.0004	0.0001	0.0001	2.719	0.039	2	13	0.0000	0.0002	0.0002
1.031	0.010	32	8	0.0006	0.0002	0.0002	2.815	0.041	14	14	0.0002	0.0002	0.0002
1.053	0.009	20	7	0.0004	0.0001	0.0001	2.913	0.043	43	16	0.0006	0.0002	0.0002
1.075	0.010	24	7	0.0005	0.0002	0.0002	3.019	0.045	79	18	0.0011	0.0002	0.0003
1.100	0.010	18	8	0.0004	0.0002	0.0002	3.127	0.048	69	20	0.0009	0.0003	0.0003
1.122	0.009	21	8	0.0003	0.0001	0.0001	3.245	0.052	119	22	0.0017	0.0003	0.0004
1.148	0.011	7	6	0.0001	0.0001	0.0001	3.367	0.053	118	24	0.0016	0.0003	0.0004
1.174	0.011	13	7	0.0002	0.0001	0.0001	3.498	0.056	114	26	0.0015	0.0003	0.0004
1.198	0.012	11	7	0.0002	0.0001	0.0001	3.636	0.061	144	27	0.0019	0.0004	0.0004
1.227	0.012	12	7	0.0002	0.0001	0.0001	3.782	0.064	140	26	0.0018	0.0003	0.0004
1.256	0.012	11	8	0.0002	0.0001	0.0001	3.937	0.068	149	26	0.0020	0.0003	0.0004
1.285	0.012	23	8	0.0003	0.0001	0.0001	4.103	0.073	150	26	0.0020	0.0004	0.0004
1.314	0.013	21	8	0.0003	0.0001	0.0001	4.279	0.076	124	26	0.0016	0.0003	0.0004
1.346	0.014	5	7	0.0001	0.0001	0.0001	4.464	0.082	108	26	0.0014	0.0003	0.0004
1.378	0.014	4	7	0.0001	0.0001	0.0001	4.665	0.088	136	27	0.0017	0.0003	0.0004
1.412	0.014	9	8	0.0002	0.0001	0.0001	4.879	0.094	117	27	0.0015	0.0003	0.0004
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	185	28	0.0023	0.0003	0.0004
1.483	0.016	3	7	0.0000	0.0001	0.0001	5.350	0.107	282	31	0.0035	0.0004	0.0005
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	242	31	0.0031	0.0004	0.0005
1.560	0.017	1	7	0.0000	0.0001	0.0001	5.899	0.124	276	31	0.0034	0.0004	0.0005
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	331	32	0.0041	0.0004	0.0006
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	297	32	0.0037	0.0004	0.0006
1.687	0.019	4	7	0.0001	0.0001	0.0001	6.891	0.158	297	33	0.0038	0.0004	0.0006
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	305	34	0.0038	0.0004	0.0006
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	196	33	0.0025	0.0004	0.0005
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	279	34	0.0036	0.0004	0.0006
1.882	0.023	4	9	0.0001	0.0001	0.0001	8.658	0.223	202	33	0.0026	0.0004	0.0005
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	183	33	0.0024	0.0004	0.0005
1.991	0.024	2	9	0.0000	0.0001	0.0001	9.809	0.270	138	32	0.0019	0.0004	0.0005
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	134	31	0.0020	0.0005	0.0005
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	182	32	0.0028	0.0005	0.0006
2.176	0.028	6	10	0.0001	0.0001	0.0001	12.019	0.366	122	30	0.0020	0.0005	0.0005
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	139	30	0.0023	0.0005	0.0006
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	63	27	0.0011	0.0005	0.0005
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	82	26	0.0014	0.0004	0.0005
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	36	24	0.0006	0.0004	0.0004
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	0	0	0.0000	0.0000	0.0000
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	74	26	0.0011	0.0004	0.0004

TABLE XLVI: Measured partial cross section for the $E_\gamma = 1699.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	17	7	0.0002	0.0001	0.0001	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	13	7	0.0002	0.0001	0.0001	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	9	7	0.0002	0.0001	0.0001	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	12	7	0.0003	0.0002	0.0002	3.019	0.045	2	18	0.0000	0.0003	0.0003
1.100	0.010	21	8	0.0004	0.0002	0.0002	3.127	0.048	12	20	0.0002	0.0003	0.0003
1.122	0.009	12	7	0.0002	0.0001	0.0001	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	0	4	0.0000	0.0000	0.0000	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	3	7	0.0000	0.0001	0.0001	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	8	7	0.0001	0.0001	0.0001	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	19	8	0.0003	0.0001	0.0002	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	4	7	0.0001	0.0001	0.0001	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	6	7	0.0001	0.0001	0.0001	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	7	8	0.0001	0.0001	0.0001	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	12	8	0.0002	0.0001	0.0001	4.464	0.082	0	0	0.0000	0.0000	0.0000
1.378	0.014	25	9	0.0004	0.0002	0.0002	4.665	0.088	0	4	0.0000	0.0000	0.0000
1.412	0.014	7	7	0.0001	0.0001	0.0001	4.879	0.094	4	26	0.0001	0.0003	0.0003
1.447	0.015	4	7	0.0001	0.0001	0.0001	5.108	0.100	43	27	0.0005	0.0003	0.0003
1.483	0.016	22	8	0.0004	0.0001	0.0001	5.350	0.107	238	31	0.0030	0.0004	0.0005
1.522	0.016	27	9	0.0004	0.0001	0.0002	5.617	0.116	304	33	0.0039	0.0004	0.0006
1.560	0.017	12	8	0.0002	0.0001	0.0001	5.899	0.124	258	32	0.0033	0.0004	0.0005
1.601	0.017	10	8	0.0002	0.0001	0.0001	6.205	0.135	280	32	0.0036	0.0004	0.0006
1.642	0.018	16	8	0.0003	0.0001	0.0001	6.532	0.145	272	33	0.0034	0.0004	0.0006
1.687	0.019	23	9	0.0004	0.0002	0.0002	6.891	0.158	269	34	0.0035	0.0004	0.0006
1.733	0.020	10	8	0.0002	0.0001	0.0001	7.281	0.171	314	35	0.0040	0.0004	0.0006
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	275	35	0.0035	0.0005	0.0006
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	272	35	0.0036	0.0005	0.0006
1.882	0.023	11	10	0.0002	0.0001	0.0001	8.658	0.223	229	35	0.0030	0.0005	0.0006
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	178	33	0.0024	0.0005	0.0005
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	188	34	0.0027	0.0005	0.0006
2.050	0.026	2	10	0.0000	0.0002	0.0002	10.467	0.297	174	33	0.0026	0.0005	0.0006
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	277	35	0.0043	0.0006	0.0007
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	187	32	0.0031	0.0005	0.0006
2.243	0.029	0	2	0.0000	0.0000	0.0000	12.933	0.403	127	30	0.0022	0.0005	0.0006
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	141	29	0.0025	0.0005	0.0006
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	72	26	0.0013	0.0005	0.0005
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	40	25	0.0007	0.0004	0.0005
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	0	0	0.0000	0.0000	0.0000
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	5	25	0.0001	0.0004	0.0004

TABLE XLVII: Measured partial cross section for the $E_\gamma = 1750.4$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	31	8	0.0005	0.0001	0.0001	2.719	0.039	70	15	0.0011	0.0002	0.0003
1.031	0.010	25	7	0.0005	0.0001	0.0002	2.815	0.041	66	16	0.0010	0.0002	0.0003
1.053	0.009	18	7	0.0004	0.0001	0.0002	2.913	0.043	52	16	0.0008	0.0002	0.0002
1.075	0.010	25	8	0.0006	0.0002	0.0002	3.019	0.045	45	16	0.0006	0.0002	0.0002
1.100	0.010	24	8	0.0005	0.0002	0.0002	3.127	0.048	92	20	0.0013	0.0003	0.0003
1.122	0.009	5	6	0.0001	0.0001	0.0001	3.245	0.052	110	22	0.0016	0.0003	0.0004
1.148	0.011	15	7	0.0003	0.0001	0.0001	3.367	0.053	150	26	0.0021	0.0004	0.0004
1.174	0.011	13	8	0.0002	0.0001	0.0001	3.498	0.056	174	28	0.0024	0.0004	0.0005
1.198	0.012	29	9	0.0005	0.0002	0.0002	3.636	0.061	148	28	0.0021	0.0004	0.0005
1.227	0.012	7	7	0.0001	0.0001	0.0001	3.782	0.064	138	28	0.0019	0.0004	0.0004
1.256	0.012	3	7	0.0000	0.0001	0.0001	3.937	0.068	108	27	0.0015	0.0004	0.0004
1.285	0.012	12	8	0.0002	0.0001	0.0001	4.103	0.073	126	27	0.0018	0.0004	0.0004
1.314	0.013	6	7	0.0001	0.0001	0.0001	4.279	0.076	340	33	0.0044	0.0004	0.0006
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	424	34	0.0056	0.0005	0.0008
1.378	0.014	3	8	0.0001	0.0001	0.0001	4.665	0.088	628	37	0.0084	0.0005	0.0010
1.412	0.014	4	8	0.0001	0.0001	0.0001	4.879	0.094	721	39	0.0095	0.0006	0.0012
1.447	0.015	6	8	0.0001	0.0001	0.0001	5.108	0.100	1090	45	0.0139	0.0006	0.0016
1.483	0.016	4	7	0.0001	0.0001	0.0001	5.350	0.107	1332	49	0.0172	0.0007	0.0020
1.522	0.016	6	8	0.0001	0.0001	0.0001	5.617	0.116	1340	47	0.0177	0.0007	0.0020
1.560	0.017	5	8	0.0001	0.0001	0.0001	5.899	0.124	1621	53	0.0209	0.0008	0.0024
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	1778	52	0.0230	0.0008	0.0026
1.642	0.018	15	8	0.0003	0.0001	0.0001	6.532	0.145	1848	56	0.0238	0.0008	0.0027
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	2170	57	0.0287	0.0009	0.0032
1.733	0.020	6	8	0.0001	0.0001	0.0001	7.281	0.171	2417	63	0.0313	0.0010	0.0035
1.780	0.020	1	7	0.0000	0.0001	0.0001	7.695	0.186	2632	62	0.0345	0.0010	0.0038
1.830	0.021	2	8	0.0000	0.0001	0.0001	8.158	0.205	2655	65	0.0361	0.0011	0.0040
1.882	0.023	15	8	0.0002	0.0001	0.0001	8.658	0.223	2713	66	0.0368	0.0011	0.0041
1.935	0.023	14	9	0.0002	0.0001	0.0001	9.203	0.243	2815	67	0.0392	0.0011	0.0043
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	2895	68	0.0423	0.0012	0.0047
2.050	0.026	1	7	0.0000	0.0001	0.0001	10.467	0.297	2856	67	0.0437	0.0013	0.0048
2.112	0.027	10	9	0.0002	0.0001	0.0001	11.208	0.326	2899	68	0.0463	0.0013	0.0051
2.176	0.028	3	9	0.0000	0.0001	0.0001	12.019	0.366	2729	66	0.0461	0.0014	0.0051
2.243	0.029	26	10	0.0004	0.0001	0.0002	12.933	0.403	2561	64	0.0448	0.0014	0.0050
2.313	0.031	18	10	0.0003	0.0002	0.0002	13.961	0.457	1813	55	0.0325	0.0011	0.0037
2.387	0.031	23	11	0.0003	0.0002	0.0002	15.094	0.512	1425	49	0.0256	0.0010	0.0029
2.463	0.034	56	13	0.0009	0.0002	0.0002	16.403	0.589	942	42	0.0173	0.0008	0.0020
2.546	0.035	47	14	0.0007	0.0002	0.0002	17.862	0.685	752	39	0.0136	0.0007	0.0016
2.631	0.037	31	14	0.0005	0.0002	0.0002	19.551	0.691	587	38	0.0088	0.0006	0.0011

TABLE XLVIII: Measured partial cross section for the E_γ = 1914.0–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	8	7	0.0001	0.0001	0.0001	2.719	0.039	29	12	0.0004	0.0002	0.0002
1.031	0.010	1	6	0.0000	0.0001	0.0001	2.815	0.041	39	13	0.0006	0.0002	0.0002
1.053	0.009	10	7	0.0002	0.0001	0.0001	2.913	0.043	37	13	0.0006	0.0002	0.0002
1.075	0.010	9	7	0.0002	0.0002	0.0002	3.019	0.045	23	13	0.0003	0.0002	0.0002
1.100	0.010	5	7	0.0001	0.0001	0.0001	3.127	0.048	16	15	0.0002	0.0002	0.0002
1.122	0.009	9	7	0.0002	0.0001	0.0001	3.245	0.052	0	4	0.0000	0.0000	0.0000
1.148	0.011	12	7	0.0002	0.0001	0.0001	3.367	0.053	12	19	0.0002	0.0003	0.0003
1.174	0.011	7	7	0.0001	0.0001	0.0001	3.498	0.056	33	21	0.0005	0.0003	0.0003
1.198	0.012	2	7	0.0000	0.0001	0.0001	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	7	7	0.0001	0.0001	0.0001	3.782	0.064	44	22	0.0006	0.0003	0.0003
1.256	0.012	5	7	0.0001	0.0001	0.0001	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	0	1	0.0000	0.0000	0.0000	4.103	0.073	37	23	0.0005	0.0003	0.0003
1.314	0.013	2	6	0.0000	0.0001	0.0001	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	5	8	0.0001	0.0001	0.0001	4.464	0.082	0	0	0.0000	0.0000	0.0000
1.378	0.014	5	7	0.0001	0.0001	0.0001	4.665	0.088	14	23	0.0002	0.0003	0.0003
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	8	23	0.0001	0.0003	0.0003
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	0	0	0.0000	0.0000	0.0000
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	57	26	0.0008	0.0003	0.0004
1.522	0.016	3	7	0.0001	0.0001	0.0001	5.617	0.116	123	28	0.0017	0.0004	0.0004
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	266	31	0.0035	0.0004	0.0006
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	327	32	0.0043	0.0004	0.0006
1.642	0.018	4	8	0.0001	0.0001	0.0001	6.532	0.145	289	31	0.0038	0.0004	0.0006
1.687	0.019	2	6	0.0000	0.0001	0.0001	6.891	0.158	255	32	0.0034	0.0004	0.0006
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	228	33	0.0030	0.0004	0.0005
1.780	0.020	1	7	0.0000	0.0001	0.0001	7.695	0.186	213	33	0.0028	0.0004	0.0005
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	192	33	0.0027	0.0005	0.0005
1.882	0.023	7	7	0.0001	0.0001	0.0001	8.658	0.223	212	33	0.0029	0.0005	0.0006
1.935	0.023	3	8	0.0000	0.0001	0.0001	9.203	0.243	136	32	0.0019	0.0005	0.0005
1.991	0.024	8	7	0.0001	0.0001	0.0001	9.809	0.270	101	31	0.0015	0.0005	0.0005
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	127	31	0.0020	0.0005	0.0005
2.112	0.027	9	8	0.0001	0.0001	0.0001	11.208	0.326	108	31	0.0018	0.0005	0.0005
2.176	0.028	11	8	0.0002	0.0001	0.0001	12.019	0.366	109	30	0.0019	0.0005	0.0006
2.243	0.029	11	8	0.0002	0.0001	0.0001	12.933	0.403	40	27	0.0007	0.0005	0.0005
2.313	0.031	0	2	0.0000	0.0000	0.0000	13.961	0.457	70	26	0.0013	0.0005	0.0005
2.387	0.031	5	8	0.0001	0.0001	0.0001	15.094	0.512	35	24	0.0006	0.0004	0.0004
2.463	0.034	9	9	0.0001	0.0001	0.0001	16.403	0.589	0	2	0.0000	0.0000	0.0000
2.546	0.035	9	9	0.0001	0.0001	0.0001	17.862	0.685	10	22	0.0002	0.0004	0.0004
2.631	0.037	32	11	0.0005	0.0002	0.0002	19.551	0.691	0	0	0.0000	0.0000	0.0000

TABLE XLIX: Measured partial cross section for the $E_\gamma = 1933.8$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	10	8	0.0001	0.0001	0.0001	2.719	0.039	14	11	0.0002	0.0002	0.0002
1.031	0.010	10	8	0.0002	0.0002	0.0002	2.815	0.041	31	12	0.0005	0.0002	0.0002
1.053	0.009	9	8	0.0002	0.0002	0.0002	2.913	0.043	52	14	0.0008	0.0002	0.0002
1.075	0.010	16	8	0.0004	0.0002	0.0002	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	9	8	0.0002	0.0002	0.0002	3.127	0.048	37	16	0.0005	0.0002	0.0002
1.122	0.009	4	8	0.0001	0.0001	0.0001	3.245	0.052	27	17	0.0004	0.0003	0.0003
1.148	0.011	7	7	0.0001	0.0001	0.0001	3.367	0.053	23	20	0.0003	0.0003	0.0003
1.174	0.011	5	7	0.0001	0.0001	0.0001	3.498	0.056	38	22	0.0005	0.0003	0.0003
1.198	0.012	24	8	0.0004	0.0002	0.0002	3.636	0.061	10	22	0.0001	0.0003	0.0003
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	8	22	0.0001	0.0003	0.0003
1.285	0.012	4	7	0.0001	0.0001	0.0001	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	4	7	0.0001	0.0001	0.0001	4.464	0.082	0	0	0.0000	0.0000	0.0000
1.378	0.014	2	7	0.0000	0.0001	0.0001	4.665	0.088	2	23	0.0000	0.0003	0.0003
1.412	0.014	0	7	0.0000	0.0000	0.0000	4.879	0.094	4	24	0.0001	0.0003	0.0003
1.447	0.015	6	7	0.0001	0.0001	0.0001	5.108	0.100	31	25	0.0004	0.0003	0.0003
1.483	0.016	12	7	0.0002	0.0001	0.0001	5.350	0.107	146	28	0.0019	0.0004	0.0004
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	240	31	0.0032	0.0004	0.0005
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	342	33	0.0045	0.0004	0.0007
1.601	0.017	9	7	0.0002	0.0001	0.0001	6.205	0.135	409	35	0.0054	0.0005	0.0007
1.642	0.018	3	7	0.0001	0.0001	0.0001	6.532	0.145	385	35	0.0050	0.0005	0.0007
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	389	35	0.0052	0.0005	0.0007
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	297	35	0.0039	0.0005	0.0006
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	306	36	0.0041	0.0005	0.0007
1.830	0.021	7	7	0.0001	0.0001	0.0001	8.158	0.205	270	35	0.0037	0.0005	0.0006
1.882	0.023	13	8	0.0002	0.0001	0.0001	8.658	0.223	161	33	0.0022	0.0005	0.0005
1.935	0.023	4	7	0.0001	0.0001	0.0001	9.203	0.243	174	34	0.0025	0.0005	0.0006
1.991	0.024	7	8	0.0001	0.0001	0.0001	9.809	0.270	215	35	0.0032	0.0005	0.0006
2.050	0.026	8	8	0.0001	0.0001	0.0001	10.467	0.297	163	33	0.0025	0.0005	0.0006
2.112	0.027	7	8	0.0001	0.0001	0.0001	11.208	0.326	198	34	0.0032	0.0006	0.0007
2.176	0.028	5	7	0.0001	0.0001	0.0001	12.019	0.366	94	31	0.0016	0.0005	0.0006
2.243	0.029	17	8	0.0003	0.0001	0.0001	12.933	0.403	99	30	0.0018	0.0005	0.0006
2.313	0.031	3	8	0.0000	0.0001	0.0001	13.961	0.457	60	26	0.0011	0.0005	0.0005
2.387	0.031	21	10	0.0003	0.0001	0.0002	15.094	0.512	16	24	0.0003	0.0004	0.0004
2.463	0.034	19	10	0.0003	0.0002	0.0002	16.403	0.589	64	24	0.0012	0.0004	0.0005
2.546	0.035	7	9	0.0001	0.0001	0.0001	17.862	0.685	1	28	0.0000	0.0005	0.0005
2.631	0.037	22	11	0.0003	0.0002	0.0002	19.551	0.691	6	24	0.0001	0.0004	0.0004

TABLE L: Measured partial cross section for the $E_\gamma = 2014.6$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	39	12	0.0006	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	29	12	0.0004	0.0002	0.0002
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	69	15	0.0010	0.0002	0.0003
1.075	0.010	8	9	0.0002	0.0002	0.0002	3.019	0.045	179	19	0.0026	0.0003	0.0004
1.100	0.010	0	3	0.0000	0.0000	0.0000	3.127	0.048	1114	38	0.0161	0.0007	0.0018
1.122	0.009	4	8	0.0001	0.0001	0.0001	3.245	0.052	1929	48	0.0287	0.0010	0.0032
1.148	0.011	0	1	0.0000	0.0000	0.0000	3.367	0.053	2755	58	0.0398	0.0012	0.0044
1.174	0.011	1	5	0.0000	0.0001	0.0001	3.498	0.056	3512	65	0.0498	0.0014	0.0055
1.198	0.012	4	8	0.0001	0.0001	0.0001	3.636	0.061	3989	69	0.0571	0.0016	0.0063
1.227	0.012	7	8	0.0001	0.0001	0.0001	3.782	0.064	2977	62	0.0414	0.0012	0.0046
1.256	0.012	4	7	0.0001	0.0001	0.0001	3.937	0.068	3293	64	0.0462	0.0013	0.0051
1.285	0.012	0	0	0.0000	0.0000	0.0000	4.103	0.073	2853	60	0.0407	0.0012	0.0045
1.314	0.013	4	8	0.0001	0.0001	0.0001	4.279	0.076	2943	62	0.0391	0.0012	0.0043
1.346	0.014	4	8	0.0001	0.0001	0.0001	4.464	0.082	3077	63	0.0415	0.0012	0.0046
1.378	0.014	34	10	0.0006	0.0002	0.0002	4.665	0.088	3073	63	0.0419	0.0012	0.0046
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	3018	63	0.0404	0.0012	0.0045
1.447	0.015	5	8	0.0001	0.0001	0.0001	5.108	0.100	2564	59	0.0334	0.0010	0.0037
1.483	0.016	4	8	0.0001	0.0001	0.0001	5.350	0.107	2325	57	0.0306	0.0010	0.0034
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	1681	51	0.0226	0.0008	0.0026
1.560	0.017	11	8	0.0002	0.0001	0.0001	5.899	0.124	1490	49	0.0196	0.0008	0.0022
1.601	0.017	6	7	0.0001	0.0001	0.0001	6.205	0.135	1462	49	0.0193	0.0007	0.0022
1.642	0.018	2	7	0.0000	0.0001	0.0001	6.532	0.145	1342	48	0.0176	0.0007	0.0020
1.687	0.019	4	7	0.0001	0.0001	0.0001	6.891	0.158	1333	49	0.0179	0.0007	0.0020
1.733	0.020	0	6	0.0000	0.0000	0.0000	7.281	0.171	1092	47	0.0144	0.0007	0.0017
1.780	0.020	18	8	0.0003	0.0001	0.0001	7.695	0.186	1030	46	0.0137	0.0006	0.0016
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	946	46	0.0131	0.0007	0.0016
1.882	0.023	2	7	0.0000	0.0001	0.0001	8.658	0.223	791	44	0.0109	0.0006	0.0013
1.935	0.023	14	8	0.0002	0.0001	0.0001	9.203	0.243	668	42	0.0095	0.0006	0.0012
1.991	0.024	6	7	0.0001	0.0001	0.0001	9.809	0.270	646	42	0.0096	0.0006	0.0012
2.050	0.026	7	8	0.0001	0.0001	0.0001	10.467	0.297	581	41	0.0090	0.0007	0.0012
2.112	0.027	4	7	0.0001	0.0001	0.0001	11.208	0.326	545	40	0.0089	0.0007	0.0012
2.176	0.028	11	8	0.0002	0.0001	0.0001	12.019	0.366	471	38	0.0081	0.0007	0.0011
2.243	0.029	6	8	0.0001	0.0001	0.0001	12.933	0.403	319	35	0.0057	0.0006	0.0009
2.313	0.031	21	9	0.0003	0.0001	0.0001	13.961	0.457	277	32	0.0050	0.0006	0.0008
2.387	0.031	25	10	0.0004	0.0001	0.0002	15.094	0.512	203	29	0.0037	0.0005	0.0007
2.463	0.034	32	10	0.0005	0.0002	0.0002	16.403	0.589	177	28	0.0033	0.0005	0.0006
2.546	0.035	27	11	0.0004	0.0002	0.0002	17.862	0.685	193	28	0.0035	0.0005	0.0006
2.631	0.037	23	11	0.0003	0.0002	0.0002	19.551	0.691	207	29	0.0032	0.0004	0.0006

TABLE LI: Measured partial cross section for the E_γ = 2036.5–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	9	14	0.0001	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	4	14	0.0001	0.0002	0.0002
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	19	16	0.0003	0.0002	0.0002
1.075	0.010	0	3	0.0000	0.0000	0.0000	3.019	0.045	8	18	0.0001	0.0003	0.0003
1.100	0.010	4	10	0.0001	0.0002	0.0002	3.127	0.048	3	20	0.0000	0.0003	0.0003
1.122	0.009	1	9	0.0000	0.0002	0.0002	3.245	0.052	11	21	0.0002	0.0003	0.0003
1.148	0.011	5	10	0.0001	0.0002	0.0002	3.367	0.053	11	25	0.0002	0.0004	0.0004
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	3	31	0.0000	0.0004	0.0004
1.198	0.012	4	10	0.0001	0.0002	0.0002	3.636	0.061	56	31	0.0008	0.0004	0.0005
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	3	10	0.0000	0.0001	0.0001	4.103	0.073	51	32	0.0007	0.0005	0.0005
1.314	0.013	8	10	0.0001	0.0002	0.0002	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	7	10	0.0001	0.0002	0.0002	4.464	0.082	17	33	0.0002	0.0004	0.0004
1.378	0.014	4	9	0.0001	0.0002	0.0002	4.665	0.088	346	38	0.0047	0.0005	0.0007
1.412	0.014	21	11	0.0004	0.0002	0.0002	4.879	0.094	541	42	0.0072	0.0006	0.0010
1.447	0.015	3	9	0.0001	0.0002	0.0002	5.108	0.100	611	44	0.0080	0.0006	0.0010
1.483	0.016	7	10	0.0001	0.0002	0.0002	5.350	0.107	671	45	0.0088	0.0006	0.0011
1.522	0.016	4	9	0.0001	0.0002	0.0002	5.617	0.116	749	47	0.0101	0.0007	0.0013
1.560	0.017	13	10	0.0002	0.0002	0.0002	5.899	0.124	742	47	0.0098	0.0006	0.0012
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	784	47	0.0103	0.0006	0.0013
1.642	0.018	0	7	0.0000	0.0000	0.0000	6.532	0.145	703	47	0.0092	0.0006	0.0012
1.687	0.019	19	11	0.0003	0.0002	0.0002	6.891	0.158	556	46	0.0075	0.0006	0.0010
1.733	0.020	18	11	0.0003	0.0002	0.0002	7.281	0.171	475	47	0.0063	0.0006	0.0009
1.780	0.020	12	10	0.0002	0.0002	0.0002	7.695	0.186	465	48	0.0062	0.0006	0.0009
1.830	0.021	4	10	0.0001	0.0002	0.0002	8.158	0.205	392	47	0.0054	0.0007	0.0009
1.882	0.023	21	11	0.0003	0.0002	0.0002	8.658	0.223	359	47	0.0050	0.0007	0.0008
1.935	0.023	2	10	0.0000	0.0002	0.0002	9.203	0.243	406	47	0.0058	0.0007	0.0009
1.991	0.024	0	2	0.0000	0.0000	0.0000	9.809	0.270	322	46	0.0048	0.0007	0.0009
2.050	0.026	7	10	0.0001	0.0002	0.0002	10.467	0.297	304	46	0.0047	0.0007	0.0009
2.112	0.027	15	10	0.0002	0.0002	0.0002	11.208	0.326	150	43	0.0024	0.0007	0.0007
2.176	0.028	13	10	0.0002	0.0002	0.0002	12.019	0.366	301	44	0.0052	0.0008	0.0009
2.243	0.029	12	10	0.0002	0.0002	0.0002	12.933	0.403	151	40	0.0027	0.0007	0.0008
2.313	0.031	15	11	0.0002	0.0002	0.0002	13.961	0.457	134	37	0.0024	0.0007	0.0007
2.387	0.031	38	12	0.0006	0.0002	0.0002	15.094	0.512	71	34	0.0013	0.0006	0.0006
2.463	0.034	37	13	0.0006	0.0002	0.0002	16.403	0.589	101	33	0.0019	0.0006	0.0006
2.546	0.035	30	13	0.0005	0.0002	0.0002	17.862	0.685	0	12	0.0000	0.0000	0.0000
2.631	0.037	44	14	0.0007	0.0002	0.0002	19.551	0.691	10	33	0.0002	0.0005	0.0005

TABLE LII: Measured partial cross section for the E_γ = 2087.4–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	19	24	0.0003	0.0004	0.0004
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	73	21	0.0011	0.0003	0.0003
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	84	24	0.0013	0.0004	0.0004
1.075	0.010	0	0	0.0000	0.0000	0.0000	3.019	0.045	67	24	0.0010	0.0004	0.0004
1.100	0.010	0	0	0.0000	0.0000	0.0000	3.127	0.048	19	25	0.0003	0.0004	0.0004
1.122	0.009	0	3	0.0000	0.0000	0.0000	3.245	0.052	144	31	0.0021	0.0005	0.0005
1.148	0.011	1	6	0.0000	0.0001	0.0001	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	7	16	0.0001	0.0003	0.0003	3.498	0.056	110	54	0.0016	0.0008	0.0008
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	128	42	0.0018	0.0006	0.0006
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	92	41	0.0013	0.0006	0.0006
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	72	41	0.0010	0.0006	0.0006
1.285	0.012	3	11	0.0000	0.0002	0.0002	4.103	0.073	120	43	0.0017	0.0006	0.0006
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	67	44	0.0009	0.0006	0.0006
1.346	0.014	9	13	0.0002	0.0002	0.0002	4.464	0.082	326	48	0.0044	0.0007	0.0008
1.378	0.014	8	17	0.0001	0.0003	0.0003	4.665	0.088	659	74	0.0090	0.0010	0.0014
1.412	0.014	20	19	0.0004	0.0003	0.0003	4.879	0.094	789	80	0.0106	0.0011	0.0016
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	989	83	0.0129	0.0011	0.0018
1.483	0.016	16	18	0.0003	0.0003	0.0003	5.350	0.107	1130	87	0.0149	0.0012	0.0020
1.522	0.016	17	14	0.0003	0.0002	0.0002	5.617	0.116	1432	95	0.0193	0.0013	0.0025
1.560	0.017	4	15	0.0001	0.0002	0.0002	5.899	0.124	1664	97	0.0219	0.0013	0.0027
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	1823	98	0.0240	0.0014	0.0029
1.642	0.018	26	13	0.0005	0.0002	0.0002	6.532	0.145	1829	100	0.0240	0.0014	0.0029
1.687	0.019	34	14	0.0006	0.0002	0.0003	6.891	0.158	1821	101	0.0245	0.0014	0.0030
1.733	0.020	4	18	0.0001	0.0003	0.0003	7.281	0.171	1510	101	0.0199	0.0014	0.0025
1.780	0.020	20	14	0.0003	0.0002	0.0002	7.695	0.186	1489	101	0.0198	0.0014	0.0025
1.830	0.021	22	13	0.0003	0.0002	0.0002	8.158	0.205	1424	100	0.0197	0.0014	0.0025
1.882	0.023	11	17	0.0002	0.0003	0.0003	8.658	0.223	1619	101	0.0223	0.0014	0.0028
1.935	0.023	23	14	0.0003	0.0002	0.0002	9.203	0.243	1337	99	0.0190	0.0014	0.0025
1.991	0.024	1	10	0.0000	0.0002	0.0002	9.809	0.270	1054	95	0.0157	0.0014	0.0022
2.050	0.026	6	16	0.0001	0.0003	0.0003	10.467	0.297	1108	94	0.0172	0.0015	0.0024
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	996	92	0.0162	0.0015	0.0023
2.176	0.028	45	17	0.0007	0.0003	0.0003	12.019	0.366	1025	90	0.0176	0.0016	0.0025
2.243	0.029	16	16	0.0002	0.0002	0.0002	12.933	0.403	763	83	0.0136	0.0015	0.0021
2.313	0.031	3	12	0.0000	0.0002	0.0002	13.961	0.457	614	75	0.0112	0.0014	0.0018
2.387	0.031	17	14	0.0003	0.0002	0.0002	15.094	0.512	306	67	0.0056	0.0012	0.0014
2.463	0.034	43	20	0.0007	0.0003	0.0003	16.403	0.589	147	60	0.0027	0.0011	0.0012
2.546	0.035	43	17	0.0007	0.0003	0.0003	17.862	0.685	163	60	0.0030	0.0011	0.0011
2.631	0.037	14	16	0.0002	0.0002	0.0002	19.551	0.691	52	44	0.0008	0.0007	0.0007

TABLE LIII: Measured partial cross section for the E_γ = 2161.8–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	70	15	0.0011	0.0002	0.0003
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	103	17	0.0016	0.0003	0.0003
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	56	31	0.0008	0.0005	0.0005
1.075	0.010	0	0	0.0000	0.0000	0.0000	3.019	0.045	119	20	0.0017	0.0003	0.0003
1.100	0.010	0	0	0.0000	0.0000	0.0000	3.127	0.048	101	21	0.0015	0.0003	0.0003
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	76	23	0.0011	0.0003	0.0004
1.148	0.011	0	1	0.0000	0.0000	0.0000	3.367	0.053	68	27	0.0010	0.0004	0.0004
1.174	0.011	4	15	0.0001	0.0002	0.0002	3.498	0.056	123	30	0.0017	0.0004	0.0005
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	120	62	0.0017	0.0009	0.0009
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	106	32	0.0015	0.0004	0.0005
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	52	32	0.0007	0.0004	0.0005
1.285	0.012	2	8	0.0000	0.0001	0.0001	4.103	0.073	133	34	0.0019	0.0005	0.0005
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	65	53	0.0009	0.0007	0.0007
1.346	0.014	0	1	0.0000	0.0000	0.0000	4.464	0.082	87	35	0.0012	0.0005	0.0005
1.378	0.014	6	11	0.0001	0.0002	0.0002	4.665	0.088	176	71	0.0024	0.0010	0.0010
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	453	78	0.0061	0.0011	0.0012
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	525	81	0.0068	0.0011	0.0013
1.483	0.016	4	11	0.0001	0.0002	0.0002	5.350	0.107	500	83	0.0066	0.0011	0.0013
1.522	0.016	3	11	0.0001	0.0002	0.0002	5.617	0.116	710	88	0.0096	0.0012	0.0016
1.560	0.017	14	21	0.0002	0.0003	0.0003	5.899	0.124	790	90	0.0104	0.0012	0.0016
1.601	0.017	27	12	0.0005	0.0002	0.0002	6.205	0.135	847	91	0.0112	0.0012	0.0017
1.642	0.018	7	10	0.0001	0.0002	0.0002	6.532	0.145	794	92	0.0104	0.0012	0.0016
1.687	0.019	1	9	0.0000	0.0002	0.0002	6.891	0.158	688	94	0.0093	0.0013	0.0016
1.733	0.020	8	11	0.0001	0.0002	0.0002	7.281	0.171	760	96	0.0100	0.0013	0.0017
1.780	0.020	6	10	0.0001	0.0002	0.0002	7.695	0.186	652	97	0.0087	0.0013	0.0016
1.830	0.021	24	21	0.0004	0.0003	0.0003	8.158	0.205	550	96	0.0076	0.0013	0.0016
1.882	0.023	23	16	0.0003	0.0002	0.0002	8.658	0.223	523	95	0.0072	0.0013	0.0015
1.935	0.023	14	19	0.0002	0.0003	0.0003	9.203	0.243	478	94	0.0068	0.0013	0.0015
1.991	0.024	7	10	0.0001	0.0002	0.0002	9.809	0.270	552	94	0.0082	0.0014	0.0017
2.050	0.026	2	19	0.0000	0.0003	0.0003	10.467	0.297	504	50	0.0078	0.0008	0.0012
2.112	0.027	12	20	0.0002	0.0003	0.0003	11.208	0.326	493	92	0.0080	0.0015	0.0017
2.176	0.028	7	10	0.0001	0.0002	0.0002	12.019	0.366	424	47	0.0073	0.0008	0.0011
2.243	0.029	6	10	0.0001	0.0002	0.0002	12.933	0.403	410	46	0.0073	0.0008	0.0011
2.313	0.031	24	16	0.0004	0.0002	0.0003	13.961	0.457	301	41	0.0055	0.0008	0.0010
2.387	0.031	32	11	0.0005	0.0002	0.0002	15.094	0.512	313	72	0.0057	0.0013	0.0015
2.463	0.034	90	15	0.0014	0.0002	0.0003	16.403	0.589	266	69	0.0050	0.0013	0.0014
2.546	0.035	76	15	0.0012	0.0002	0.0003	17.862	0.685	469	73	0.0086	0.0013	0.0016
2.631	0.037	34	25	0.0005	0.0004	0.0004	19.551	0.691	424	75	0.0065	0.0012	0.0013

TABLE LIV: Measured partial cross section for the E_γ = 2240.3–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	31	11	0.0005	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	27	11	0.0004	0.0002	0.0002
1.053	0.009	2	9	0.0000	0.0002	0.0002	2.913	0.043	32	13	0.0005	0.0002	0.0002
1.075	0.010	0	1	0.0000	0.0000	0.0000	3.019	0.045	2	13	0.0000	0.0002	0.0002
1.100	0.010	0	0	0.0000	0.0000	0.0000	3.127	0.048	68	16	0.0010	0.0002	0.0003
1.122	0.009	0	1	0.0000	0.0000	0.0000	3.245	0.052	306	25	0.0045	0.0004	0.0006
1.148	0.011	2	6	0.0000	0.0001	0.0001	3.367	0.053	1991	50	0.0287	0.0010	0.0032
1.174	0.011	2	8	0.0000	0.0001	0.0001	3.498	0.056	2235	53	0.0317	0.0010	0.0035
1.198	0.012	5	9	0.0001	0.0002	0.0002	3.636	0.061	2448	58	0.0350	0.0011	0.0039
1.227	0.012	4	8	0.0001	0.0001	0.0001	3.782	0.064	2209	54	0.0307	0.0010	0.0034
1.256	0.012	5	9	0.0001	0.0002	0.0002	3.937	0.068	2993	63	0.0420	0.0013	0.0047
1.285	0.012	1	4	0.0000	0.0001	0.0001	4.103	0.073	3279	65	0.0468	0.0014	0.0052
1.314	0.013	0	3	0.0000	0.0000	0.0000	4.279	0.076	3889	71	0.0517	0.0014	0.0057
1.346	0.014	0	1	0.0000	0.0000	0.0000	4.464	0.082	4490	76	0.0606	0.0016	0.0067
1.378	0.014	1	5	0.0000	0.0001	0.0001	4.665	0.088	4418	75	0.0602	0.0016	0.0066
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	4579	76	0.0614	0.0016	0.0068
1.447	0.015	11	9	0.0002	0.0002	0.0002	5.108	0.100	4474	76	0.0582	0.0015	0.0064
1.483	0.016	13	9	0.0002	0.0002	0.0002	5.350	0.107	4657	78	0.0613	0.0016	0.0068
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	4687	78	0.0631	0.0017	0.0070
1.560	0.017	19	10	0.0003	0.0002	0.0002	5.899	0.124	4768	79	0.0627	0.0016	0.0069
1.601	0.017	5	9	0.0001	0.0002	0.0002	6.205	0.135	4803	79	0.0633	0.0016	0.0069
1.642	0.018	10	9	0.0002	0.0002	0.0002	6.532	0.145	4494	77	0.0589	0.0014	0.0065
1.687	0.019	8	9	0.0001	0.0002	0.0002	6.891	0.158	4144	76	0.0557	0.0014	0.0061
1.733	0.020	8	9	0.0001	0.0002	0.0002	7.281	0.171	4165	77	0.0548	0.0013	0.0060
1.780	0.020	6	8	0.0001	0.0001	0.0001	7.695	0.186	3839	74	0.0512	0.0013	0.0056
1.830	0.021	15	9	0.0002	0.0001	0.0001	8.158	0.205	3656	73	0.0505	0.0013	0.0056
1.882	0.023	5	7	0.0001	0.0001	0.0001	8.658	0.223	3297	70	0.0455	0.0012	0.0050
1.935	0.023	1	7	0.0000	0.0001	0.0001	9.203	0.243	3163	69	0.0449	0.0012	0.0049
1.991	0.024	2	6	0.0000	0.0001	0.0001	9.809	0.270	2833	67	0.0421	0.0012	0.0047
2.050	0.026	6	8	0.0001	0.0001	0.0001	10.467	0.297	2500	64	0.0389	0.0012	0.0043
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	2362	62	0.0384	0.0012	0.0043
2.176	0.028	3	8	0.0000	0.0001	0.0001	12.019	0.366	2120	59	0.0365	0.0012	0.0041
2.243	0.029	11	9	0.0002	0.0001	0.0001	12.933	0.403	1694	54	0.0301	0.0011	0.0034
2.313	0.031	5	8	0.0001	0.0001	0.0001	13.961	0.457	971	44	0.0177	0.0009	0.0021
2.387	0.031	23	10	0.0003	0.0001	0.0002	15.094	0.512	746	40	0.0136	0.0008	0.0016
2.463	0.034	11	9	0.0002	0.0001	0.0001	16.403	0.589	524	36	0.0098	0.0007	0.0013
2.546	0.035	42	11	0.0007	0.0002	0.0002	17.862	0.685	330	33	0.0061	0.0006	0.0009
2.631	0.037	22	10	0.0003	0.0002	0.0002	19.551	0.691	277	33	0.0042	0.0005	0.0007

TABLE LV: Measured partial cross section for the E_γ = 2285.6–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	2	11	0.0000	0.0002	0.0002
1.031	0.010	1	7	0.0000	0.0001	0.0001	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	1	8	0.0000	0.0001	0.0001
1.075	0.010	0	1	0.0000	0.0000	0.0000	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	0	3	0.0000	0.0000	0.0000	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	0	3	0.0000	0.0000	0.0000	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	5	19	0.0001	0.0003	0.0003
1.227	0.012	2	9	0.0000	0.0002	0.0002	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	0	0	0.0000	0.0000	0.0000	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	2	8	0.0000	0.0001	0.0001	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	2	20	0.0000	0.0003	0.0003
1.378	0.014	0	6	0.0000	0.0000	0.0000	4.665	0.088	4	27	0.0001	0.0004	0.0004
1.412	0.014	1	7	0.0000	0.0001	0.0001	4.879	0.094	55	30	0.0007	0.0004	0.0004
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	137	32	0.0018	0.0004	0.0005
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	181	34	0.0024	0.0005	0.0005
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	142	35	0.0019	0.0005	0.0005
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	143	35	0.0019	0.0005	0.0005
1.601	0.017	7	10	0.0001	0.0002	0.0002	6.205	0.135	195	36	0.0026	0.0005	0.0006
1.642	0.018	9	9	0.0002	0.0002	0.0002	6.532	0.145	255	37	0.0033	0.0005	0.0006
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	238	39	0.0032	0.0005	0.0006
1.733	0.020	1	8	0.0000	0.0001	0.0001	7.281	0.171	198	39	0.0026	0.0005	0.0006
1.780	0.020	8	7	0.0001	0.0001	0.0001	7.695	0.186	176	40	0.0023	0.0005	0.0006
1.830	0.021	5	7	0.0001	0.0001	0.0001	8.158	0.205	120	38	0.0017	0.0005	0.0006
1.882	0.023	0	1	0.0000	0.0000	0.0000	8.658	0.223	173	39	0.0024	0.0005	0.0006
1.935	0.023	4	8	0.0001	0.0001	0.0001	9.203	0.243	172	39	0.0024	0.0006	0.0006
1.991	0.024	3	8	0.0000	0.0001	0.0001	9.809	0.270	137	38	0.0020	0.0006	0.0006
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	26	35	0.0004	0.0005	0.0005
2.112	0.027	2	8	0.0000	0.0001	0.0001	11.208	0.326	95	37	0.0015	0.0006	0.0006
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	51	35	0.0009	0.0006	0.0006
2.243	0.029	9	8	0.0001	0.0001	0.0001	12.933	0.403	39	33	0.0007	0.0006	0.0006
2.313	0.031	7	11	0.0001	0.0002	0.0002	13.961	0.457	45	31	0.0008	0.0006	0.0006
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	0	0	0.0000	0.0000	0.0000
2.463	0.034	1	7	0.0000	0.0001	0.0001	16.403	0.589	27	21	0.0005	0.0004	0.0004
2.546	0.035	12	8	0.0002	0.0001	0.0001	17.862	0.685	39	27	0.0007	0.0005	0.0005
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	50	23	0.0008	0.0004	0.0004

TABLE LVI: Measured partial cross section for the E_γ = 2371.8–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	9	12	0.0001	0.0002	0.0002	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	5	12	0.0001	0.0002	0.0002	2.815	0.041	9	13	0.0001	0.0002	0.0002
1.053	0.009	0	3	0.0000	0.0000	0.0000	2.913	0.043	14	15	0.0002	0.0002	0.0002
1.075	0.010	1	9	0.0000	0.0002	0.0002	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	1	4	0.0000	0.0001	0.0001	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	9	16	0.0002	0.0003	0.0003	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	1	8	0.0000	0.0002	0.0002	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	0	1	0.0000	0.0000	0.0000	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	13	13	0.0002	0.0002	0.0002	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	4	16	0.0001	0.0003	0.0003	3.782	0.064	116	53	0.0016	0.0007	0.0008
1.256	0.012	4	12	0.0001	0.0002	0.0002	3.937	0.068	12	54	0.0002	0.0008	0.0008
1.285	0.012	1	7	0.0000	0.0001	0.0001	4.103	0.073	21	55	0.0003	0.0008	0.0008
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	55	60	0.0007	0.0008	0.0008
1.346	0.014	1	11	0.0000	0.0002	0.0002	4.464	0.082	169	62	0.0023	0.0008	0.0009
1.378	0.014	7	14	0.0001	0.0002	0.0002	4.665	0.088	158	62	0.0022	0.0008	0.0009
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	463	66	0.0062	0.0009	0.0011
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	727	73	0.0095	0.0010	0.0014
1.483	0.016	8	12	0.0001	0.0002	0.0002	5.350	0.107	988	77	0.0130	0.0010	0.0017
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	902	77	0.0121	0.0011	0.0017
1.560	0.017	3	16	0.0000	0.0003	0.0003	5.899	0.124	1014	78	0.0133	0.0011	0.0018
1.601	0.017	9	12	0.0002	0.0002	0.0002	6.205	0.135	1004	79	0.0132	0.0011	0.0018
1.642	0.018	4	17	0.0001	0.0003	0.0003	6.532	0.145	939	79	0.0123	0.0011	0.0017
1.687	0.019	8	14	0.0001	0.0002	0.0002	6.891	0.158	844	80	0.0114	0.0011	0.0016
1.733	0.020	1	10	0.0000	0.0002	0.0002	7.281	0.171	987	84	0.0130	0.0011	0.0018
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	896	85	0.0119	0.0011	0.0017
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	758	83	0.0105	0.0012	0.0016
1.882	0.023	0	3	0.0000	0.0000	0.0000	8.658	0.223	793	84	0.0109	0.0012	0.0017
1.935	0.023	2	14	0.0000	0.0002	0.0002	9.203	0.243	570	81	0.0081	0.0012	0.0014
1.991	0.024	17	13	0.0003	0.0002	0.0002	9.809	0.270	595	81	0.0089	0.0012	0.0015
2.050	0.026	12	14	0.0002	0.0002	0.0002	10.467	0.297	571	79	0.0089	0.0012	0.0016
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	611	79	0.0099	0.0013	0.0017
2.176	0.028	17	13	0.0003	0.0002	0.0002	12.019	0.366	530	77	0.0091	0.0013	0.0017
2.243	0.029	6	11	0.0001	0.0002	0.0002	12.933	0.403	355	70	0.0063	0.0012	0.0014
2.313	0.031	17	16	0.0003	0.0002	0.0003	13.961	0.457	406	66	0.0074	0.0012	0.0014
2.387	0.031	38	13	0.0006	0.0002	0.0002	15.094	0.512	286	59	0.0052	0.0011	0.0012
2.463	0.034	0	1	0.0000	0.0000	0.0000	16.403	0.589	344	57	0.0064	0.0011	0.0013
2.546	0.035	6	13	0.0001	0.0002	0.0002	17.862	0.685	370	57	0.0068	0.0011	0.0013
2.631	0.037	0	1	0.0000	0.0000	0.0000	19.551	0.691	312	56	0.0048	0.0009	0.0010

TABLE LVII: Measured partial cross section for the $E_\gamma = 2375.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	0	1	0.0000	0.0000	0.0000	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	8	7	0.0002	0.0001	0.0001	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	6	8	0.0001	0.0002	0.0002	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	0	1	0.0000	0.0000	0.0000	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	3	7	0.0001	0.0001	0.0001	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	5	6	0.0001	0.0001	0.0001	3.367	0.053	311	23	0.0045	0.0003	0.0006
1.174	0.011	5	7	0.0001	0.0001	0.0001	3.498	0.056	2573	55	0.0365	0.0011	0.0041
1.198	0.012	0	2	0.0000	0.0000	0.0000	3.636	0.061	3064	60	0.0438	0.0013	0.0049
1.227	0.012	7	10	0.0001	0.0002	0.0002	3.782	0.064	3435	70	0.0478	0.0014	0.0053
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	4697	80	0.0659	0.0018	0.0073
1.285	0.012	15	8	0.0002	0.0001	0.0001	4.103	0.073	5115	83	0.0730	0.0020	0.0081
1.314	0.013	4	8	0.0001	0.0001	0.0001	4.279	0.076	5738	91	0.0763	0.0020	0.0084
1.346	0.014	6	8	0.0001	0.0001	0.0001	4.464	0.082	5953	92	0.0804	0.0021	0.0088
1.378	0.014	1	5	0.0000	0.0001	0.0001	4.665	0.088	5660	88	0.0771	0.0020	0.0085
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	5593	92	0.0749	0.0020	0.0083
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	5943	95	0.0773	0.0020	0.0085
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	5932	97	0.0781	0.0021	0.0086
1.522	0.016	8	8	0.0001	0.0001	0.0001	5.617	0.116	6002	97	0.0808	0.0021	0.0089
1.560	0.017	3	8	0.0000	0.0001	0.0001	5.899	0.124	6322	100	0.0831	0.0021	0.0091
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	6664	102	0.0878	0.0021	0.0096
1.642	0.018	14	11	0.0003	0.0002	0.0002	6.532	0.145	6645	102	0.0871	0.0020	0.0095
1.687	0.019	2	7	0.0000	0.0001	0.0001	6.891	0.158	6482	101	0.0872	0.0020	0.0095
1.733	0.020	0	2	0.0000	0.0000	0.0000	7.281	0.171	6316	101	0.0832	0.0019	0.0091
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	6212	101	0.0828	0.0018	0.0090
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	5889	99	0.0814	0.0019	0.0089
1.882	0.023	4	6	0.0001	0.0001	0.0001	8.658	0.223	5648	98	0.0780	0.0018	0.0085
1.935	0.023	3	8	0.0000	0.0001	0.0001	9.203	0.243	5313	95	0.0753	0.0018	0.0083
1.991	0.024	1	4	0.0000	0.0001	0.0001	9.809	0.270	5171	93	0.0769	0.0019	0.0084
2.050	0.026	1	7	0.0000	0.0001	0.0001	10.467	0.297	4718	90	0.0734	0.0019	0.0081
2.112	0.027	8	8	0.0001	0.0001	0.0001	11.208	0.326	4446	88	0.0722	0.0019	0.0080
2.176	0.028	1	4	0.0000	0.0001	0.0001	12.019	0.366	4187	86	0.0720	0.0019	0.0079
2.243	0.029	1	3	0.0000	0.0000	0.0000	12.933	0.403	3415	78	0.0607	0.0018	0.0067
2.313	0.031	11	9	0.0002	0.0001	0.0001	13.961	0.457	2371	67	0.0432	0.0014	0.0048
2.387	0.031	0	1	0.0000	0.0000	0.0000	15.094	0.512	1746	59	0.0319	0.0012	0.0036
2.463	0.034	1	4	0.0000	0.0001	0.0001	16.403	0.589	1264	53	0.0236	0.0011	0.0027
2.546	0.035	0	3	0.0000	0.0000	0.0000	17.862	0.685	979	49	0.0180	0.0009	0.0021
2.631	0.037	9	7	0.0001	0.0001	0.0001	19.551	0.691	865	48	0.0132	0.0008	0.0016

TABLE LVIII: Measured partial cross section for the $E_\gamma = 2387.5$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	3	0.0000	0.0000	0.0000	2.719	0.039	1	8	0.0000	0.0001	0.0001
1.031	0.010	6	10	0.0001	0.0002	0.0002	2.815	0.041	3	12	0.0000	0.0002	0.0002
1.053	0.009	11	10	0.0002	0.0002	0.0002	2.913	0.043	17	12	0.0003	0.0002	0.0002
1.075	0.010	2	8	0.0000	0.0002	0.0002	3.019	0.045	43	15	0.0006	0.0002	0.0002
1.100	0.010	3	9	0.0001	0.0002	0.0002	3.127	0.048	67	17	0.0010	0.0002	0.0003
1.122	0.009	6	10	0.0001	0.0002	0.0002	3.245	0.052	50	18	0.0007	0.0003	0.0003
1.148	0.011	3	8	0.0001	0.0002	0.0002	3.367	0.053	181	24	0.0026	0.0004	0.0004
1.174	0.011	3	11	0.0000	0.0002	0.0002	3.498	0.056	1997	52	0.0283	0.0010	0.0032
1.198	0.012	0	2	0.0000	0.0000	0.0000	3.636	0.061	3164	64	0.0453	0.0014	0.0050
1.227	0.012	14	12	0.0003	0.0002	0.0002	3.782	0.064	3275	65	0.0456	0.0013	0.0051
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	4595	75	0.0645	0.0017	0.0071
1.285	0.012	4	9	0.0001	0.0001	0.0001	4.103	0.073	4912	77	0.0701	0.0019	0.0077
1.314	0.013	0	1	0.0000	0.0000	0.0000	4.279	0.076	4600	77	0.0612	0.0016	0.0067
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	4219	74	0.0570	0.0015	0.0063
1.378	0.014	1	6	0.0000	0.0001	0.0001	4.665	0.088	4321	74	0.0589	0.0016	0.0065
1.412	0.014	3	11	0.0001	0.0002	0.0002	4.879	0.094	4507	76	0.0604	0.0016	0.0067
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	4563	77	0.0594	0.0016	0.0065
1.483	0.016	11	11	0.0002	0.0002	0.0002	5.350	0.107	4479	76	0.0589	0.0016	0.0065
1.522	0.016	10	11	0.0002	0.0002	0.0002	5.617	0.116	4096	74	0.0551	0.0015	0.0061
1.560	0.017	6	11	0.0001	0.0002	0.0002	5.899	0.124	3758	71	0.0494	0.0014	0.0055
1.601	0.017	4	10	0.0001	0.0002	0.0002	6.205	0.135	3497	69	0.0461	0.0012	0.0051
1.642	0.018	5	9	0.0001	0.0002	0.0002	6.532	0.145	3196	67	0.0419	0.0011	0.0046
1.687	0.019	15	10	0.0003	0.0002	0.0002	6.891	0.158	2964	67	0.0399	0.0011	0.0044
1.733	0.020	11	11	0.0002	0.0002	0.0002	7.281	0.171	2820	66	0.0371	0.0010	0.0041
1.780	0.020	3	9	0.0000	0.0001	0.0001	7.695	0.186	2733	66	0.0364	0.0010	0.0040
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	2425	64	0.0335	0.0010	0.0037
1.882	0.023	10	10	0.0002	0.0002	0.0002	8.658	0.223	2093	62	0.0289	0.0010	0.0032
1.935	0.023	3	10	0.0000	0.0002	0.0002	9.203	0.243	2019	61	0.0286	0.0010	0.0032
1.991	0.024	3	9	0.0000	0.0001	0.0001	9.809	0.270	1895	60	0.0282	0.0010	0.0032
2.050	0.026	1	6	0.0000	0.0001	0.0001	10.467	0.297	1480	56	0.0230	0.0010	0.0026
2.112	0.027	4	10	0.0001	0.0002	0.0002	11.208	0.326	1469	55	0.0239	0.0010	0.0027
2.176	0.028	12	11	0.0002	0.0002	0.0002	12.019	0.366	1196	52	0.0206	0.0010	0.0024
2.243	0.029	24	11	0.0004	0.0002	0.0002	12.933	0.403	964	48	0.0171	0.0009	0.0020
2.313	0.031	29	12	0.0005	0.0002	0.0002	13.961	0.457	717	43	0.0131	0.0008	0.0016
2.387	0.031	4	9	0.0001	0.0001	0.0001	15.094	0.512	444	37	0.0081	0.0007	0.0011
2.463	0.034	15	11	0.0002	0.0002	0.0002	16.403	0.589	354	35	0.0066	0.0007	0.0010
2.546	0.035	0	2	0.0000	0.0000	0.0000	17.862	0.685	248	33	0.0046	0.0006	0.0008
2.631	0.037	2	8	0.0000	0.0001	0.0001	19.551	0.691	247	34	0.0038	0.0005	0.0007

TABLE LIX: Measured partial cross section for the E_γ = 2421.0–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	22	9	0.0003	0.0001	0.0001	2.719	0.039	504	26	0.0077	0.0004	0.0009
1.031	0.010	6	9	0.0001	0.0002	0.0002	2.815	0.041	505	25	0.0076	0.0004	0.0009
1.053	0.009	8	9	0.0002	0.0002	0.0002	2.913	0.043	506	26	0.0075	0.0004	0.0009
1.075	0.010	6	9	0.0001	0.0002	0.0002	3.019	0.045	660	29	0.0096	0.0005	0.0011
1.100	0.010	4	8	0.0001	0.0002	0.0002	3.127	0.048	740	31	0.0107	0.0005	0.0012
1.122	0.009	7	9	0.0001	0.0002	0.0002	3.245	0.052	765	32	0.0114	0.0005	0.0013
1.148	0.011	12	9	0.0002	0.0002	0.0002	3.367	0.053	701	32	0.0101	0.0005	0.0012
1.174	0.011	15	10	0.0002	0.0002	0.0002	3.498	0.056	783	35	0.0111	0.0006	0.0013
1.198	0.012	8	9	0.0001	0.0002	0.0002	3.636	0.061	798	36	0.0114	0.0006	0.0013
1.227	0.012	3	8	0.0001	0.0001	0.0001	3.782	0.064	770	36	0.0107	0.0005	0.0013
1.256	0.012	4	9	0.0001	0.0002	0.0002	3.937	0.068	625	34	0.0088	0.0005	0.0011
1.285	0.012	5	8	0.0001	0.0001	0.0001	4.103	0.073	662	35	0.0094	0.0005	0.0011
1.314	0.013	3	9	0.0000	0.0001	0.0001	4.279	0.076	682	37	0.0091	0.0005	0.0011
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	591	35	0.0080	0.0005	0.0010
1.378	0.014	0	1	0.0000	0.0000	0.0000	4.665	0.088	500	34	0.0068	0.0005	0.0009
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	583	35	0.0078	0.0005	0.0010
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	528	35	0.0069	0.0005	0.0009
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	526	36	0.0069	0.0005	0.0009
1.522	0.016	8	9	0.0001	0.0002	0.0002	5.617	0.116	517	36	0.0070	0.0005	0.0009
1.560	0.017	3	9	0.0000	0.0001	0.0001	5.899	0.124	510	36	0.0067	0.0005	0.0009
1.601	0.017	3	9	0.0001	0.0002	0.0002	6.205	0.135	512	36	0.0067	0.0005	0.0009
1.642	0.018	9	9	0.0002	0.0002	0.0002	6.532	0.145	482	36	0.0063	0.0005	0.0008
1.687	0.019	4	9	0.0001	0.0002	0.0002	6.891	0.158	396	36	0.0053	0.0005	0.0008
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	459	39	0.0060	0.0005	0.0008
1.780	0.020	10	9	0.0002	0.0001	0.0001	7.695	0.186	397	39	0.0053	0.0005	0.0008
1.830	0.021	3	9	0.0000	0.0001	0.0001	8.158	0.205	319	37	0.0044	0.0005	0.0007
1.882	0.023	6	9	0.0001	0.0001	0.0001	8.658	0.223	300	38	0.0041	0.0005	0.0007
1.935	0.023	3	9	0.0000	0.0001	0.0001	9.203	0.243	281	37	0.0040	0.0005	0.0007
1.991	0.024	0	1	0.0000	0.0000	0.0000	9.809	0.270	306	38	0.0046	0.0006	0.0007
2.050	0.026	3	9	0.0000	0.0001	0.0001	10.467	0.297	257	38	0.0040	0.0006	0.0007
2.112	0.027	4	8	0.0001	0.0001	0.0001	11.208	0.326	193	36	0.0031	0.0006	0.0007
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	246	37	0.0042	0.0006	0.0008
2.243	0.029	0	1	0.0000	0.0000	0.0000	12.933	0.403	137	33	0.0024	0.0006	0.0006
2.313	0.031	21	9	0.0003	0.0001	0.0001	13.961	0.457	24	29	0.0004	0.0005	0.0005
2.387	0.031	4	9	0.0001	0.0001	0.0001	15.094	0.512	35	27	0.0006	0.0005	0.0005
2.463	0.034	83	13	0.0013	0.0002	0.0002	16.403	0.589	19	25	0.0004	0.0005	0.0005
2.546	0.035	301	20	0.0047	0.0003	0.0006	17.862	0.685	0	0	0.0000	0.0000	0.0000
2.631	0.037	438	24	0.0066	0.0004	0.0008	19.551	0.691	11	27	0.0002	0.0004	0.0004

TABLE LX: Measured partial cross section for the E_γ = 2463.6–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	25	10	0.0004	0.0002	0.0002	2.719	0.039	17	11	0.0003	0.0002	0.0002
1.031	0.010	12	9	0.0002	0.0002	0.0002	2.815	0.041	18	11	0.0003	0.0002	0.0002
1.053	0.009	15	9	0.0003	0.0002	0.0002	2.913	0.043	21	11	0.0003	0.0002	0.0002
1.075	0.010	13	9	0.0003	0.0002	0.0002	3.019	0.045	17	12	0.0002	0.0002	0.0002
1.100	0.010	13	9	0.0003	0.0002	0.0002	3.127	0.048	5	13	0.0001	0.0002	0.0002
1.122	0.009	15	10	0.0003	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	13	10	0.0003	0.0002	0.0002	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	7	9	0.0001	0.0001	0.0001	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	18	10	0.0003	0.0002	0.0002	3.636	0.061	36	21	0.0005	0.0003	0.0003
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	8	9	0.0001	0.0002	0.0002	3.937	0.068	1	17	0.0000	0.0002	0.0002
1.285	0.012	3	11	0.0000	0.0002	0.0002	4.103	0.073	8	22	0.0001	0.0003	0.0003
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	13	24	0.0002	0.0003	0.0003
1.346	0.014	3	10	0.0001	0.0002	0.0002	4.464	0.082	35	25	0.0005	0.0003	0.0003
1.378	0.014	2	9	0.0000	0.0002	0.0002	4.665	0.088	19	24	0.0003	0.0003	0.0003
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	12	24	0.0002	0.0003	0.0003
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	197	29	0.0026	0.0004	0.0005
1.483	0.016	7	10	0.0001	0.0002	0.0002	5.350	0.107	274	31	0.0036	0.0004	0.0006
1.522	0.016	4	10	0.0001	0.0002	0.0002	5.617	0.116	306	33	0.0041	0.0005	0.0006
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	355	34	0.0047	0.0005	0.0007
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	652	38	0.0086	0.0005	0.0011
1.642	0.018	11	11	0.0002	0.0002	0.0002	6.532	0.145	579	38	0.0076	0.0005	0.0010
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	485	38	0.0065	0.0005	0.0009
1.733	0.020	0	2	0.0000	0.0000	0.0000	7.281	0.171	457	39	0.0060	0.0005	0.0008
1.780	0.020	5	9	0.0001	0.0001	0.0001	7.695	0.186	365	39	0.0049	0.0005	0.0007
1.830	0.021	3	9	0.0000	0.0001	0.0001	8.158	0.205	291	38	0.0040	0.0005	0.0007
1.882	0.023	1	7	0.0000	0.0001	0.0001	8.658	0.223	266	39	0.0037	0.0005	0.0007
1.935	0.023	1	8	0.0000	0.0001	0.0001	9.203	0.243	285	38	0.0040	0.0005	0.0007
1.991	0.024	3	8	0.0000	0.0001	0.0001	9.809	0.270	218	38	0.0032	0.0006	0.0007
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	188	37	0.0029	0.0006	0.0007
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	217	37	0.0035	0.0006	0.0007
2.176	0.028	3	10	0.0000	0.0002	0.0002	12.019	0.366	177	36	0.0030	0.0006	0.0007
2.243	0.029	7	10	0.0001	0.0002	0.0002	12.933	0.403	158	34	0.0028	0.0006	0.0007
2.313	0.031	10	9	0.0002	0.0001	0.0001	13.961	0.457	53	30	0.0010	0.0005	0.0006
2.387	0.031	7	9	0.0001	0.0001	0.0001	15.094	0.512	56	29	0.0010	0.0005	0.0005
2.463	0.034	4	8	0.0001	0.0001	0.0001	16.403	0.589	68	27	0.0013	0.0005	0.0005
2.546	0.035	10	10	0.0002	0.0002	0.0002	17.862	0.685	166	29	0.0031	0.0005	0.0006
2.631	0.037	15	10	0.0002	0.0002	0.0002	19.551	0.691	123	29	0.0019	0.0004	0.0005

TABLE LXI: Measured partial cross section for the E_γ = 2633.2–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	47	12	0.0007	0.0002	0.0002	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	34	10	0.0007	0.0002	0.0002	2.815	0.041	6	11	0.0001	0.0002	0.0002
1.053	0.009	29	10	0.0006	0.0002	0.0002	2.913	0.043	4	10	0.0001	0.0001	0.0001
1.075	0.010	47	13	0.0011	0.0003	0.0004	3.019	0.045	0	5	0.0000	0.0000	0.0000
1.100	0.010	19	10	0.0004	0.0002	0.0002	3.127	0.048	5	10	0.0001	0.0001	0.0001
1.122	0.009	18	11	0.0003	0.0002	0.0002	3.245	0.052	26	14	0.0004	0.0002	0.0002
1.148	0.011	13	10	0.0003	0.0002	0.0002	3.367	0.053	4	14	0.0001	0.0002	0.0002
1.174	0.011	21	10	0.0003	0.0002	0.0002	3.498	0.056	44	18	0.0006	0.0003	0.0003
1.198	0.012	15	10	0.0003	0.0002	0.0002	3.636	0.061	326	26	0.0047	0.0004	0.0006
1.227	0.012	13	11	0.0002	0.0002	0.0002	3.782	0.064	1596	46	0.0222	0.0008	0.0025
1.256	0.012	15	11	0.0003	0.0002	0.0002	3.937	0.068	2348	55	0.0330	0.0010	0.0037
1.285	0.012	11	11	0.0002	0.0002	0.0002	4.103	0.073	2771	59	0.0395	0.0012	0.0044
1.314	0.013	13	11	0.0002	0.0002	0.0002	4.279	0.076	3088	62	0.0411	0.0012	0.0045
1.346	0.014	9	11	0.0002	0.0002	0.0002	4.464	0.082	3242	63	0.0438	0.0012	0.0048
1.378	0.014	0	4	0.0000	0.0000	0.0000	4.665	0.088	3245	64	0.0442	0.0013	0.0049
1.412	0.014	6	10	0.0001	0.0002	0.0002	4.879	0.094	3402	65	0.0456	0.0013	0.0050
1.447	0.015	3	11	0.0001	0.0002	0.0002	5.108	0.100	3263	64	0.0425	0.0012	0.0047
1.483	0.016	4	11	0.0001	0.0002	0.0002	5.350	0.107	3567	66	0.0469	0.0013	0.0052
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	3569	67	0.0480	0.0014	0.0053
1.560	0.017	4	11	0.0001	0.0002	0.0002	5.899	0.124	3461	66	0.0455	0.0013	0.0050
1.601	0.017	1	10	0.0000	0.0002	0.0002	6.205	0.135	3275	64	0.0432	0.0012	0.0048
1.642	0.018	0	3	0.0000	0.0000	0.0000	6.532	0.145	2897	62	0.0379	0.0010	0.0042
1.687	0.019	3	11	0.0001	0.0002	0.0002	6.891	0.158	2771	62	0.0373	0.0010	0.0041
1.733	0.020	0	5	0.0000	0.0000	0.0000	7.281	0.171	2503	61	0.0330	0.0010	0.0037
1.780	0.020	6	9	0.0001	0.0001	0.0001	7.695	0.186	2234	60	0.0298	0.0009	0.0033
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	1952	57	0.0270	0.0009	0.0030
1.882	0.023	2	7	0.0000	0.0001	0.0001	8.658	0.223	1868	57	0.0258	0.0009	0.0029
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	1774	56	0.0252	0.0009	0.0028
1.991	0.024	7	11	0.0001	0.0002	0.0002	9.809	0.270	1496	54	0.0223	0.0009	0.0025
2.050	0.026	9	11	0.0001	0.0002	0.0002	10.467	0.297	1360	52	0.0212	0.0009	0.0024
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	1394	53	0.0226	0.0009	0.0026
2.176	0.028	0	3	0.0000	0.0000	0.0000	12.019	0.366	1079	49	0.0186	0.0009	0.0022
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	866	45	0.0154	0.0008	0.0019
2.313	0.031	10	11	0.0002	0.0002	0.0002	13.961	0.457	666	41	0.0121	0.0008	0.0015
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	350	35	0.0064	0.0006	0.0009
2.463	0.034	0	2	0.0000	0.0000	0.0000	16.403	0.589	268	32	0.0050	0.0006	0.0008
2.546	0.035	1	4	0.0000	0.0001	0.0001	17.862	0.685	200	30	0.0037	0.0006	0.0007
2.631	0.037	5	10	0.0001	0.0002	0.0002	19.551	0.691	162	31	0.0025	0.0005	0.0005

TABLE LXII: Measured partial cross section for the $E_\gamma = 2716.2$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	28	10	0.0004	0.0002	0.0002	2.719	0.039	3	10	0.0000	0.0002	0.0002
1.031	0.010	25	9	0.0005	0.0002	0.0002	2.815	0.041	7	10	0.0001	0.0002	0.0002
1.053	0.009	14	9	0.0003	0.0002	0.0002	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	14	9	0.0003	0.0002	0.0002	3.019	0.045	18	11	0.0003	0.0002	0.0002
1.100	0.010	10	9	0.0002	0.0002	0.0002	3.127	0.048	29	11	0.0004	0.0002	0.0002
1.122	0.009	13	10	0.0002	0.0002	0.0002	3.245	0.052	59	13	0.0009	0.0002	0.0002
1.148	0.011	18	10	0.0004	0.0002	0.0002	3.367	0.053	119	17	0.0017	0.0002	0.0003
1.174	0.011	12	10	0.0002	0.0002	0.0002	3.498	0.056	148	19	0.0021	0.0003	0.0004
1.198	0.012	5	10	0.0001	0.0002	0.0002	3.636	0.061	222	21	0.0032	0.0003	0.0005
1.227	0.012	9	10	0.0002	0.0002	0.0002	3.782	0.064	716	32	0.0100	0.0005	0.0012
1.256	0.012	5	10	0.0001	0.0002	0.0002	3.937	0.068	1140	39	0.0160	0.0006	0.0018
1.285	0.012	3	9	0.0000	0.0001	0.0001	4.103	0.073	1262	41	0.0180	0.0007	0.0021
1.314	0.013	3	11	0.0000	0.0002	0.0002	4.279	0.076	1506	45	0.0200	0.0007	0.0023
1.346	0.014	3	9	0.0001	0.0002	0.0002	4.464	0.082	1422	44	0.0192	0.0007	0.0022
1.378	0.014	9	9	0.0002	0.0002	0.0002	4.665	0.088	1571	46	0.0214	0.0008	0.0024
1.412	0.014	3	11	0.0001	0.0002	0.0002	4.879	0.094	1729	48	0.0232	0.0008	0.0026
1.447	0.015	3	10	0.0001	0.0002	0.0002	5.108	0.100	1662	47	0.0216	0.0008	0.0024
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	1674	48	0.0220	0.0008	0.0025
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	1536	47	0.0207	0.0008	0.0023
1.560	0.017	6	10	0.0001	0.0002	0.0002	5.899	0.124	1555	47	0.0204	0.0007	0.0023
1.601	0.017	3	9	0.0001	0.0002	0.0002	6.205	0.135	1456	46	0.0192	0.0007	0.0022
1.642	0.018	3	11	0.0001	0.0002	0.0002	6.532	0.145	1356	45	0.0178	0.0007	0.0020
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	1219	45	0.0164	0.0007	0.0019
1.733	0.020	2	10	0.0000	0.0002	0.0002	7.281	0.171	1139	45	0.0150	0.0006	0.0017
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	966	44	0.0129	0.0006	0.0015
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	879	43	0.0121	0.0006	0.0014
1.882	0.023	2	9	0.0000	0.0001	0.0001	8.658	0.223	721	42	0.0100	0.0006	0.0012
1.935	0.023	5	10	0.0001	0.0002	0.0002	9.203	0.243	690	42	0.0098	0.0006	0.0012
1.991	0.024	8	10	0.0001	0.0002	0.0002	9.809	0.270	682	43	0.0101	0.0007	0.0013
2.050	0.026	4	11	0.0001	0.0002	0.0002	10.467	0.297	573	41	0.0089	0.0007	0.0012
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	558	41	0.0091	0.0007	0.0012
2.176	0.028	3	9	0.0000	0.0001	0.0001	12.019	0.366	554	40	0.0095	0.0007	0.0012
2.243	0.029	9	11	0.0001	0.0002	0.0002	12.933	0.403	456	38	0.0081	0.0007	0.0011
2.313	0.031	9	10	0.0001	0.0002	0.0002	13.961	0.457	299	33	0.0054	0.0006	0.0008
2.387	0.031	6	10	0.0001	0.0001	0.0001	15.094	0.512	208	30	0.0038	0.0006	0.0007
2.463	0.034	7	11	0.0001	0.0002	0.0002	16.403	0.589	136	27	0.0025	0.0005	0.0006
2.546	0.035	16	11	0.0003	0.0002	0.0002	17.862	0.685	119	26	0.0022	0.0005	0.0005
2.631	0.037	18	11	0.0003	0.0002	0.0002	19.551	0.691	120	27	0.0018	0.0004	0.0005

TABLE LXIII: Measured partial cross section for the $E_\gamma = 2754.7$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	19	11	0.0003	0.0002	0.0002	2.719	0.039	7	12	0.0001	0.0002	0.0002
1.031	0.010	29	13	0.0006	0.0003	0.0003	2.815	0.041	6	12	0.0001	0.0002	0.0002
1.053	0.009	14	11	0.0003	0.0002	0.0002	2.913	0.043	9	14	0.0001	0.0002	0.0002
1.075	0.010	10	11	0.0002	0.0003	0.0003	3.019	0.045	4	11	0.0001	0.0002	0.0002
1.100	0.010	13	12	0.0003	0.0003	0.0003	3.127	0.048	14	12	0.0002	0.0002	0.0002
1.122	0.009	7	11	0.0001	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	13	11	0.0003	0.0002	0.0002	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	13	11	0.0002	0.0002	0.0002	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	17	11	0.0003	0.0002	0.0002	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	8	11	0.0001	0.0002	0.0002	3.782	0.064	155	22	0.0022	0.0003	0.0004
1.256	0.012	13	11	0.0002	0.0002	0.0002	3.937	0.068	498	30	0.0070	0.0004	0.0009
1.285	0.012	7	11	0.0001	0.0002	0.0002	4.103	0.073	507	31	0.0072	0.0005	0.0009
1.314	0.013	18	13	0.0003	0.0002	0.0002	4.279	0.076	546	33	0.0073	0.0005	0.0009
1.346	0.014	11	12	0.0002	0.0002	0.0002	4.464	0.082	625	35	0.0084	0.0005	0.0010
1.378	0.014	21	12	0.0004	0.0002	0.0002	4.665	0.088	784	37	0.0107	0.0006	0.0013
1.412	0.014	4	11	0.0001	0.0002	0.0002	4.879	0.094	749	36	0.0100	0.0005	0.0012
1.447	0.015	11	12	0.0002	0.0002	0.0002	5.108	0.100	791	38	0.0103	0.0005	0.0012
1.483	0.016	6	12	0.0001	0.0002	0.0002	5.350	0.107	773	38	0.0102	0.0005	0.0012
1.522	0.016	8	12	0.0001	0.0002	0.0002	5.617	0.116	685	38	0.0092	0.0005	0.0011
1.560	0.017	13	12	0.0002	0.0002	0.0002	5.899	0.124	722	38	0.0095	0.0005	0.0011
1.601	0.017	5	11	0.0001	0.0002	0.0002	6.205	0.135	750	38	0.0099	0.0005	0.0012
1.642	0.018	13	11	0.0002	0.0002	0.0002	6.532	0.145	702	39	0.0092	0.0005	0.0011
1.687	0.019	9	11	0.0002	0.0002	0.0002	6.891	0.158	646	40	0.0087	0.0006	0.0011
1.733	0.020	7	12	0.0001	0.0002	0.0002	7.281	0.171	556	41	0.0073	0.0006	0.0010
1.780	0.020	6	11	0.0001	0.0002	0.0002	7.695	0.186	559	43	0.0074	0.0006	0.0010
1.830	0.021	8	11	0.0001	0.0002	0.0002	8.158	0.205	591	44	0.0082	0.0006	0.0011
1.882	0.023	10	11	0.0002	0.0002	0.0002	8.658	0.223	426	43	0.0059	0.0006	0.0009
1.935	0.023	1	9	0.0000	0.0001	0.0001	9.203	0.243	413	43	0.0059	0.0006	0.0009
1.991	0.024	9	12	0.0001	0.0002	0.0002	9.809	0.270	462	44	0.0069	0.0007	0.0010
2.050	0.026	12	12	0.0002	0.0002	0.0002	10.467	0.297	502	45	0.0078	0.0007	0.0011
2.112	0.027	21	12	0.0003	0.0002	0.0002	11.208	0.326	697	47	0.0113	0.0008	0.0014
2.176	0.028	5	12	0.0001	0.0002	0.0002	12.019	0.366	559	45	0.0096	0.0008	0.0013
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	728	46	0.0129	0.0008	0.0016
2.313	0.031	4	14	0.0001	0.0002	0.0002	13.961	0.457	500	41	0.0091	0.0008	0.0012
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	461	38	0.0084	0.0007	0.0011
2.463	0.034	1	7	0.0000	0.0001	0.0001	16.403	0.589	332	34	0.0062	0.0006	0.0009
2.546	0.035	8	12	0.0001	0.0002	0.0002	17.862	0.685	202	31	0.0037	0.0006	0.0007
2.631	0.037	1	7	0.0000	0.0001	0.0001	19.551	0.691	176	31	0.0027	0.0005	0.0006

TABLE LXIV: Measured partial cross section for the $E_\gamma = 2868.5$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	5	9	0.0001	0.0001	0.0001
1.031	0.010	3	10	0.0001	0.0002	0.0002	2.815	0.041	2	10	0.0000	0.0002	0.0002
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	2	9	0.0000	0.0002	0.0002	3.019	0.045	3	10	0.0000	0.0001	0.0001
1.100	0.010	0	2	0.0000	0.0000	0.0000	3.127	0.048	3	9	0.0000	0.0001	0.0001
1.122	0.009	2	8	0.0000	0.0001	0.0001	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	3	9	0.0001	0.0002	0.0002	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	0	1	0.0000	0.0000	0.0000	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	0	5	0.0000	0.0000	0.0000	3.636	0.061	22	13	0.0003	0.0002	0.0002
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	31	13	0.0004	0.0002	0.0002
1.256	0.012	6	9	0.0001	0.0002	0.0002	3.937	0.068	459	27	0.0064	0.0004	0.0008
1.285	0.012	3	9	0.0000	0.0001	0.0001	4.103	0.073	1257	39	0.0179	0.0007	0.0020
1.314	0.013	14	11	0.0002	0.0002	0.0002	4.279	0.076	1609	44	0.0214	0.0007	0.0024
1.346	0.014	12	11	0.0002	0.0002	0.0002	4.464	0.082	1665	45	0.0225	0.0008	0.0025
1.378	0.014	5	9	0.0001	0.0002	0.0002	4.665	0.088	1880	48	0.0256	0.0008	0.0029
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	1812	49	0.0243	0.0008	0.0027
1.447	0.015	5	9	0.0001	0.0002	0.0002	5.108	0.100	1741	48	0.0226	0.0008	0.0025
1.483	0.016	11	9	0.0002	0.0002	0.0002	5.350	0.107	1819	49	0.0239	0.0008	0.0027
1.522	0.016	8	10	0.0001	0.0002	0.0002	5.617	0.116	2103	53	0.0283	0.0009	0.0032
1.560	0.017	6	9	0.0001	0.0001	0.0001	5.899	0.124	2087	53	0.0274	0.0009	0.0031
1.601	0.017	15	10	0.0003	0.0002	0.0002	6.205	0.135	2124	53	0.0280	0.0009	0.0031
1.642	0.018	11	10	0.0002	0.0002	0.0002	6.532	0.145	2058	52	0.0270	0.0008	0.0030
1.687	0.019	0	5	0.0000	0.0000	0.0000	6.891	0.158	2033	53	0.0273	0.0008	0.0030
1.733	0.020	5	10	0.0001	0.0002	0.0002	7.281	0.171	1992	54	0.0262	0.0008	0.0029
1.780	0.020	5	8	0.0001	0.0001	0.0001	7.695	0.186	1911	54	0.0255	0.0008	0.0028
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	1944	55	0.0269	0.0009	0.0030
1.882	0.023	5	9	0.0001	0.0001	0.0001	8.658	0.223	1726	53	0.0238	0.0008	0.0027
1.935	0.023	14	11	0.0002	0.0002	0.0002	9.203	0.243	1582	51	0.0224	0.0008	0.0025
1.991	0.024	6	10	0.0001	0.0002	0.0002	9.809	0.270	1456	51	0.0217	0.0008	0.0025
2.050	0.026	8	9	0.0001	0.0001	0.0001	10.467	0.297	1479	51	0.0230	0.0009	0.0026
2.112	0.027	8	10	0.0001	0.0002	0.0002	11.208	0.326	1244	48	0.0202	0.0009	0.0023
2.176	0.028	0	1	0.0000	0.0000	0.0000	12.019	0.366	1186	47	0.0204	0.0009	0.0024
2.243	0.029	4	8	0.0001	0.0001	0.0001	12.933	0.403	933	43	0.0166	0.0008	0.0020
2.313	0.031	13	11	0.0002	0.0002	0.0002	13.961	0.457	665	37	0.0121	0.0007	0.0015
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	415	31	0.0076	0.0006	0.0010
2.463	0.034	3	10	0.0000	0.0002	0.0002	16.403	0.589	291	28	0.0054	0.0005	0.0008
2.546	0.035	1	6	0.0000	0.0001	0.0001	17.862	0.685	267	27	0.0049	0.0005	0.0007
2.631	0.037	8	10	0.0001	0.0002	0.0002	19.551	0.691	171	25	0.0026	0.0004	0.0005

TABLE LXV: Measured partial cross section for the $E_\gamma = 3090.6$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	0	6	0.0000	0.0000	0.0000
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	0	2	0.0000	0.0000	0.0000	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	0	2	0.0000	0.0000	0.0000	3.127	0.048	9	10	0.0001	0.0001	0.0001
1.122	0.009	2	10	0.0000	0.0002	0.0002	3.245	0.052	8	12	0.0001	0.0002	0.0002
1.148	0.011	1	5	0.0000	0.0001	0.0001	3.367	0.053	20	14	0.0003	0.0002	0.0002
1.174	0.011	0	1	0.0000	0.0000	0.0000	3.498	0.056	26	15	0.0004	0.0002	0.0002
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	65	18	0.0009	0.0003	0.0003
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	58	19	0.0008	0.0003	0.0003
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	84	21	0.0012	0.0003	0.0003
1.285	0.012	3	13	0.0000	0.0002	0.0002	4.103	0.073	39	21	0.0006	0.0003	0.0003
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	187	26	0.0025	0.0003	0.0004
1.346	0.014	15	12	0.0003	0.0002	0.0002	4.464	0.082	323	28	0.0044	0.0004	0.0006
1.378	0.014	4	13	0.0001	0.0002	0.0002	4.665	0.088	431	31	0.0059	0.0004	0.0008
1.412	0.014	4	10	0.0001	0.0002	0.0002	4.879	0.094	520	33	0.0070	0.0005	0.0009
1.447	0.015	4	14	0.0001	0.0002	0.0002	5.108	0.100	540	34	0.0070	0.0005	0.0009
1.483	0.016	0	1	0.0000	0.0000	0.0000	5.350	0.107	568	36	0.0075	0.0005	0.0009
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	638	37	0.0086	0.0005	0.0011
1.560	0.017	0	3	0.0000	0.0000	0.0000	5.899	0.124	677	38	0.0089	0.0005	0.0011
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	777	38	0.0102	0.0005	0.0012
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	711	39	0.0093	0.0005	0.0011
1.687	0.019	4	14	0.0001	0.0002	0.0002	6.891	0.158	746	43	0.0100	0.0006	0.0012
1.733	0.020	3	13	0.0001	0.0002	0.0002	7.281	0.171	782	47	0.0103	0.0006	0.0013
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	719	49	0.0096	0.0007	0.0012
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	665	51	0.0092	0.0007	0.0012
1.882	0.023	5	12	0.0001	0.0002	0.0002	8.658	0.223	648	54	0.0089	0.0008	0.0012
1.935	0.023	1	9	0.0000	0.0001	0.0001	9.203	0.243	470	53	0.0067	0.0008	0.0010
1.991	0.024	0	1	0.0000	0.0000	0.0000	9.809	0.270	468	53	0.0070	0.0008	0.0011
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	568	52	0.0088	0.0008	0.0013
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	424	48	0.0069	0.0008	0.0011
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	442	48	0.0076	0.0008	0.0012
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	391	46	0.0070	0.0008	0.0011
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	267	42	0.0049	0.0008	0.0009
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	131	35	0.0024	0.0006	0.0007
2.463	0.034	2	13	0.0000	0.0002	0.0002	16.403	0.589	199	32	0.0037	0.0006	0.0007
2.546	0.035	0	3	0.0000	0.0000	0.0000	17.862	0.685	52	28	0.0010	0.0005	0.0005
2.631	0.037	0	1	0.0000	0.0000	0.0000	19.551	0.691	135	30	0.0021	0.0005	0.0005

TABLE LXVI: Measured partial cross section for the $E_\gamma = 3328.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	36	12	0.0005	0.0002	0.0002	2.719	0.039	6	10	0.0001	0.0002	0.0002
1.031	0.010	27	12	0.0005	0.0002	0.0002	2.815	0.041	5	10	0.0001	0.0002	0.0002
1.053	0.009	20	11	0.0004	0.0002	0.0002	2.913	0.043	2	11	0.0000	0.0002	0.0002
1.075	0.010	29	13	0.0007	0.0003	0.0003	3.019	0.045	5	11	0.0001	0.0002	0.0002
1.100	0.010	15	12	0.0003	0.0003	0.0003	3.127	0.048	5	13	0.0001	0.0002	0.0002
1.122	0.009	10	11	0.0002	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	5	11	0.0001	0.0002	0.0002	3.367	0.053	5	11	0.0001	0.0002	0.0002
1.174	0.011	13	12	0.0002	0.0002	0.0002	3.498	0.056	5	11	0.0001	0.0002	0.0002
1.198	0.012	15	11	0.0003	0.0002	0.0002	3.636	0.061	3	10	0.0000	0.0001	0.0001
1.227	0.012	9	11	0.0002	0.0002	0.0002	3.782	0.064	15	12	0.0002	0.0002	0.0002
1.256	0.012	6	11	0.0001	0.0002	0.0002	3.937	0.068	11	12	0.0002	0.0002	0.0002
1.285	0.012	5	12	0.0001	0.0002	0.0002	4.103	0.073	9	13	0.0001	0.0002	0.0002
1.314	0.013	3	13	0.0000	0.0002	0.0002	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	2	9	0.0000	0.0002	0.0002	4.464	0.082	115	18	0.0016	0.0002	0.0003
1.378	0.014	5	9	0.0001	0.0002	0.0002	4.665	0.088	181	21	0.0025	0.0003	0.0004
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	251	22	0.0034	0.0003	0.0005
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	217	22	0.0028	0.0003	0.0004
1.483	0.016	0	10	0.0000	0.0000	0.0000	5.350	0.107	264	24	0.0035	0.0003	0.0005
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	392	27	0.0053	0.0004	0.0007
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	281	24	0.0037	0.0003	0.0005
1.601	0.017	4	11	0.0001	0.0002	0.0002	6.205	0.135	226	24	0.0030	0.0003	0.0005
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	224	24	0.0029	0.0003	0.0004
1.687	0.019	5	9	0.0001	0.0002	0.0002	6.891	0.158	181	24	0.0024	0.0003	0.0004
1.733	0.020	0	3	0.0000	0.0000	0.0000	7.281	0.171	167	26	0.0022	0.0003	0.0004
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	177	27	0.0024	0.0004	0.0004
1.830	0.021	5	11	0.0001	0.0002	0.0002	8.158	0.205	76	26	0.0011	0.0004	0.0004
1.882	0.023	0	1	0.0000	0.0000	0.0000	8.658	0.223	130	29	0.0018	0.0004	0.0004
1.935	0.023	0	1	0.0000	0.0000	0.0000	9.203	0.243	97	29	0.0014	0.0004	0.0004
1.991	0.024	2	12	0.0000	0.0002	0.0002	9.809	0.270	109	30	0.0016	0.0004	0.0005
2.050	0.026	14	14	0.0002	0.0002	0.0002	10.467	0.297	29	29	0.0005	0.0005	0.0005
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	67	29	0.0011	0.0005	0.0005
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	61	28	0.0010	0.0005	0.0005
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	132	29	0.0023	0.0005	0.0006
2.313	0.031	0	4	0.0000	0.0000	0.0000	13.961	0.457	38	24	0.0007	0.0004	0.0004
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	34	23	0.0006	0.0004	0.0004
2.463	0.034	2	12	0.0000	0.0002	0.0002	16.403	0.589	78	22	0.0015	0.0004	0.0004
2.546	0.035	1	7	0.0000	0.0001	0.0001	17.862	0.685	51	20	0.0009	0.0004	0.0004
2.631	0.037	3	11	0.0000	0.0002	0.0002	19.551	0.691	59	20	0.0009	0.0003	0.0003

TABLE LXVII: Measured partial cross section for the $E_\gamma = 3371.2$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	40	14	0.0006	0.0002	0.0002	2.719	0.039	0	8	0.0000	0.0000	0.0000
1.031	0.010	39	15	0.0007	0.0003	0.0003	2.815	0.041	14	15	0.0002	0.0002	0.0002
1.053	0.009	24	15	0.0005	0.0003	0.0003	2.913	0.043	7	13	0.0001	0.0002	0.0002
1.075	0.010	29	15	0.0007	0.0004	0.0004	3.019	0.045	7	15	0.0001	0.0002	0.0002
1.100	0.010	25	15	0.0005	0.0003	0.0003	3.127	0.048	9	14	0.0001	0.0002	0.0002
1.122	0.009	37	15	0.0006	0.0003	0.0003	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	24	15	0.0005	0.0003	0.0003	3.367	0.053	21	13	0.0003	0.0002	0.0002
1.174	0.011	21	16	0.0003	0.0003	0.0003	3.498	0.056	120	18	0.0017	0.0003	0.0003
1.198	0.012	23	16	0.0004	0.0003	0.0003	3.636	0.061	210	20	0.0030	0.0003	0.0004
1.227	0.012	12	15	0.0002	0.0003	0.0003	3.782	0.064	277	22	0.0039	0.0003	0.0005
1.256	0.012	17	17	0.0003	0.0003	0.0003	3.937	0.068	329	24	0.0046	0.0004	0.0006
1.285	0.012	8	13	0.0001	0.0002	0.0002	4.103	0.073	413	27	0.0059	0.0004	0.0007
1.314	0.013	21	15	0.0003	0.0002	0.0002	4.279	0.076	443	28	0.0059	0.0004	0.0007
1.346	0.014	7	14	0.0001	0.0002	0.0002	4.464	0.082	456	30	0.0062	0.0004	0.0008
1.378	0.014	1	7	0.0000	0.0001	0.0001	4.665	0.088	493	31	0.0067	0.0004	0.0008
1.412	0.014	6	17	0.0001	0.0003	0.0003	4.879	0.094	465	31	0.0062	0.0004	0.0008
1.447	0.015	6	13	0.0001	0.0002	0.0002	5.108	0.100	434	32	0.0056	0.0004	0.0007
1.483	0.016	8	16	0.0001	0.0003	0.0003	5.350	0.107	476	33	0.0063	0.0005	0.0008
1.522	0.016	3	14	0.0001	0.0002	0.0002	5.617	0.116	477	34	0.0064	0.0005	0.0008
1.560	0.017	3	13	0.0000	0.0002	0.0002	5.899	0.124	382	32	0.0050	0.0004	0.0007
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	349	31	0.0046	0.0004	0.0006
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	327	31	0.0043	0.0004	0.0006
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	277	32	0.0037	0.0004	0.0006
1.733	0.020	9	14	0.0002	0.0002	0.0002	7.281	0.171	238	34	0.0031	0.0005	0.0006
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	284	36	0.0038	0.0005	0.0006
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	232	37	0.0032	0.0005	0.0006
1.882	0.023	2	13	0.0000	0.0002	0.0002	8.658	0.223	144	37	0.0020	0.0005	0.0006
1.935	0.023	7	16	0.0001	0.0002	0.0002	9.203	0.243	264	40	0.0037	0.0006	0.0007
1.991	0.024	2	11	0.0000	0.0002	0.0002	9.809	0.270	249	40	0.0037	0.0006	0.0007
2.050	0.026	0	7	0.0000	0.0000	0.0000	10.467	0.297	278	42	0.0043	0.0007	0.0008
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	205	40	0.0033	0.0007	0.0007
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	234	40	0.0040	0.0007	0.0008
2.243	0.029	6	14	0.0001	0.0002	0.0002	12.933	0.403	200	37	0.0036	0.0007	0.0008
2.313	0.031	4	15	0.0001	0.0002	0.0002	13.961	0.457	118	33	0.0022	0.0006	0.0006
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	154	31	0.0028	0.0006	0.0006
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	79	27	0.0015	0.0005	0.0005
2.546	0.035	8	16	0.0001	0.0003	0.0003	17.862	0.685	13	25	0.0002	0.0005	0.0005
2.631	0.037	5	14	0.0001	0.0002	0.0002	19.551	0.691	8	24	0.0001	0.0004	0.0004

TABLE LXVIII: Measured partial cross section for the E_γ = 3404.9–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	52	13	0.0008	0.0002	0.0002	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	54	15	0.0010	0.0003	0.0003	2.815	0.041	7	17	0.0001	0.0003	0.0003
1.053	0.009	31	14	0.0006	0.0003	0.0003	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	47	15	0.0011	0.0004	0.0004	3.019	0.045	5	16	0.0001	0.0002	0.0002
1.100	0.010	33	14	0.0007	0.0003	0.0003	3.127	0.048	8	12	0.0001	0.0002	0.0002
1.122	0.009	33	15	0.0006	0.0003	0.0003	3.245	0.052	1	10	0.0000	0.0001	0.0001
1.148	0.011	17	14	0.0003	0.0003	0.0003	3.367	0.053	1	12	0.0000	0.0002	0.0002
1.174	0.011	22	14	0.0004	0.0002	0.0002	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	23	15	0.0004	0.0003	0.0003	3.636	0.061	5	14	0.0001	0.0002	0.0002
1.227	0.012	14	13	0.0003	0.0002	0.0002	3.782	0.064	8	13	0.0001	0.0002	0.0002
1.256	0.012	20	15	0.0003	0.0003	0.0003	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	16	16	0.0002	0.0002	0.0002	4.103	0.073	6	14	0.0001	0.0002	0.0002
1.314	0.013	9	15	0.0001	0.0002	0.0002	4.279	0.076	13	16	0.0002	0.0002	0.0002
1.346	0.014	6	15	0.0001	0.0003	0.0003	4.464	0.082	98	19	0.0013	0.0003	0.0003
1.378	0.014	4	16	0.0001	0.0003	0.0003	4.665	0.088	267	25	0.0036	0.0003	0.0005
1.412	0.014	4	14	0.0001	0.0002	0.0002	4.879	0.094	377	27	0.0051	0.0004	0.0007
1.447	0.015	2	16	0.0000	0.0003	0.0003	5.108	0.100	356	28	0.0046	0.0004	0.0006
1.483	0.016	7	14	0.0001	0.0002	0.0002	5.350	0.107	503	31	0.0066	0.0004	0.0008
1.522	0.016	6	16	0.0001	0.0003	0.0003	5.617	0.116	527	32	0.0071	0.0005	0.0009
1.560	0.017	0	2	0.0000	0.0000	0.0000	5.899	0.124	596	33	0.0078	0.0005	0.0010
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	615	34	0.0081	0.0005	0.0010
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	595	33	0.0078	0.0005	0.0009
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	534	34	0.0072	0.0005	0.0009
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	514	36	0.0068	0.0005	0.0009
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	506	37	0.0067	0.0005	0.0009
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	459	38	0.0063	0.0005	0.0009
1.882	0.023	0	5	0.0000	0.0000	0.0000	8.658	0.223	554	41	0.0076	0.0006	0.0010
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	526	40	0.0075	0.0006	0.0010
1.991	0.024	0	1	0.0000	0.0000	0.0000	9.809	0.270	503	41	0.0075	0.0006	0.0010
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	356	40	0.0055	0.0006	0.0009
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	465	41	0.0076	0.0007	0.0011
2.176	0.028	5	16	0.0001	0.0002	0.0002	12.019	0.366	396	39	0.0068	0.0007	0.0010
2.243	0.029	0	2	0.0000	0.0000	0.0000	12.933	0.403	240	35	0.0043	0.0006	0.0008
2.313	0.031	3	14	0.0000	0.0002	0.0002	13.961	0.457	173	32	0.0032	0.0006	0.0007
2.387	0.031	0	6	0.0000	0.0000	0.0000	15.094	0.512	162	30	0.0030	0.0006	0.0006
2.463	0.034	1	11	0.0000	0.0002	0.0002	16.403	0.589	83	26	0.0015	0.0005	0.0005
2.546	0.035	9	15	0.0001	0.0002	0.0002	17.862	0.685	77	25	0.0014	0.0005	0.0005
2.631	0.037	6	13	0.0001	0.0002	0.0002	19.551	0.691	160	26	0.0024	0.0004	0.0005

TABLE LXIX: Measured partial cross section for the $E_\gamma = 3597.6$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	7	14	0.0001	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	8	11	0.0001	0.0002	0.0002
1.075	0.010	1	6	0.0000	0.0001	0.0001	3.019	0.045	13	14	0.0002	0.0002	0.0002
1.100	0.010	2	10	0.0000	0.0002	0.0002	3.127	0.048	8	14	0.0001	0.0002	0.0002
1.122	0.009	0	2	0.0000	0.0000	0.0000	3.245	0.052	6	14	0.0001	0.0002	0.0002
1.148	0.011	2	13	0.0000	0.0003	0.0003	3.367	0.053	6	14	0.0001	0.0002	0.0002
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	10	13	0.0001	0.0002	0.0002
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	0	1	0.0000	0.0000	0.0000
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	14	12	0.0002	0.0002	0.0002
1.256	0.012	4	15	0.0001	0.0003	0.0003	3.937	0.068	14	12	0.0002	0.0002	0.0002
1.285	0.012	0	3	0.0000	0.0000	0.0000	4.103	0.073	10	12	0.0001	0.0002	0.0002
1.314	0.013	8	13	0.0001	0.0002	0.0002	4.279	0.076	26	14	0.0003	0.0002	0.0002
1.346	0.014	0	4	0.0000	0.0000	0.0000	4.464	0.082	6	12	0.0001	0.0002	0.0002
1.378	0.014	2	13	0.0000	0.0002	0.0002	4.665	0.088	147	18	0.0020	0.0002	0.0003
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	254	22	0.0034	0.0003	0.0005
1.447	0.015	7	14	0.0001	0.0002	0.0002	5.108	0.100	418	26	0.0054	0.0004	0.0007
1.483	0.016	4	14	0.0001	0.0002	0.0002	5.350	0.107	389	25	0.0051	0.0003	0.0006
1.522	0.016	4	14	0.0001	0.0002	0.0002	5.617	0.116	404	27	0.0054	0.0004	0.0007
1.560	0.017	4	12	0.0001	0.0002	0.0002	5.899	0.124	482	28	0.0063	0.0004	0.0008
1.601	0.017	8	12	0.0001	0.0002	0.0002	6.205	0.135	436	27	0.0057	0.0004	0.0007
1.642	0.018	5	11	0.0001	0.0002	0.0002	6.532	0.145	415	27	0.0054	0.0004	0.0007
1.687	0.019	4	11	0.0001	0.0002	0.0002	6.891	0.158	421	28	0.0057	0.0004	0.0007
1.733	0.020	5	12	0.0001	0.0002	0.0002	7.281	0.171	284	27	0.0037	0.0004	0.0005
1.780	0.020	7	14	0.0001	0.0002	0.0002	7.695	0.186	284	29	0.0038	0.0004	0.0006
1.830	0.021	4	13	0.0001	0.0002	0.0002	8.158	0.205	298	30	0.0041	0.0004	0.0006
1.882	0.023	4	14	0.0001	0.0002	0.0002	8.658	0.223	251	32	0.0035	0.0004	0.0006
1.935	0.023	1	10	0.0000	0.0002	0.0002	9.203	0.243	263	32	0.0037	0.0005	0.0006
1.991	0.024	8	13	0.0001	0.0002	0.0002	9.809	0.270	238	33	0.0035	0.0005	0.0006
2.050	0.026	13	12	0.0002	0.0002	0.0002	10.467	0.297	247	33	0.0038	0.0005	0.0007
2.112	0.027	5	11	0.0001	0.0002	0.0002	11.208	0.326	137	31	0.0022	0.0005	0.0006
2.176	0.028	7	13	0.0001	0.0002	0.0002	12.019	0.366	94	30	0.0016	0.0005	0.0005
2.243	0.029	6	14	0.0001	0.0002	0.0002	12.933	0.403	121	29	0.0022	0.0005	0.0006
2.313	0.031	5	15	0.0001	0.0002	0.0002	13.961	0.457	138	28	0.0025	0.0005	0.0006
2.387	0.031	4	13	0.0001	0.0002	0.0002	15.094	0.512	127	26	0.0023	0.0005	0.0005
2.463	0.034	5	13	0.0001	0.0002	0.0002	16.403	0.589	81	22	0.0015	0.0004	0.0004
2.546	0.035	4	13	0.0001	0.0002	0.0002	17.862	0.685	100	22	0.0018	0.0004	0.0005
2.631	0.037	6	13	0.0001	0.0002	0.0002	19.551	0.691	38	20	0.0006	0.0003	0.0003

TABLE LXX: Measured partial cross section for the $E_\gamma = 3699.1$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	4	14	0.0001	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	4	13	0.0001	0.0002	0.0002
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	7	12	0.0001	0.0002	0.0002
1.075	0.010	0	0	0.0000	0.0000	0.0000	3.019	0.045	7	14	0.0001	0.0002	0.0002
1.100	0.010	0	1	0.0000	0.0000	0.0000	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	10	13	0.0001	0.0002	0.0002
1.148	0.011	1	5	0.0000	0.0001	0.0001	3.367	0.053	4	13	0.0001	0.0002	0.0002
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	179	18	0.0025	0.0003	0.0004
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	457	25	0.0064	0.0004	0.0008
1.285	0.012	0	2	0.0000	0.0000	0.0000	4.103	0.073	654	29	0.0093	0.0005	0.0011
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	710	30	0.0094	0.0004	0.0011
1.346	0.014	7	14	0.0001	0.0002	0.0002	4.464	0.082	778	31	0.0105	0.0005	0.0012
1.378	0.014	1	9	0.0000	0.0002	0.0002	4.665	0.088	783	33	0.0107	0.0005	0.0012
1.412	0.014	4	14	0.0001	0.0002	0.0002	4.879	0.094	883	34	0.0118	0.0005	0.0014
1.447	0.015	10	17	0.0002	0.0003	0.0003	5.108	0.100	997	36	0.0130	0.0005	0.0015
1.483	0.016	4	15	0.0001	0.0003	0.0003	5.350	0.107	852	34	0.0112	0.0005	0.0013
1.522	0.016	9	14	0.0002	0.0002	0.0002	5.617	0.116	884	36	0.0119	0.0005	0.0014
1.560	0.017	5	15	0.0001	0.0002	0.0002	5.899	0.124	813	35	0.0107	0.0005	0.0013
1.601	0.017	9	14	0.0002	0.0002	0.0002	6.205	0.135	786	35	0.0104	0.0005	0.0012
1.642	0.018	10	14	0.0002	0.0003	0.0003	6.532	0.145	813	34	0.0106	0.0005	0.0012
1.687	0.019	11	14	0.0002	0.0002	0.0002	6.891	0.158	724	35	0.0097	0.0005	0.0012
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	625	34	0.0082	0.0005	0.0010
1.780	0.020	5	14	0.0001	0.0002	0.0002	7.695	0.186	593	36	0.0079	0.0005	0.0010
1.830	0.021	6	15	0.0001	0.0002	0.0002	8.158	0.205	714	38	0.0099	0.0005	0.0012
1.882	0.023	6	13	0.0001	0.0002	0.0002	8.658	0.223	972	44	0.0134	0.0006	0.0016
1.935	0.023	11	14	0.0002	0.0002	0.0002	9.203	0.243	984	44	0.0140	0.0007	0.0016
1.991	0.024	7	13	0.0001	0.0002	0.0002	9.809	0.270	1030	46	0.0153	0.0007	0.0018
2.050	0.026	6	15	0.0001	0.0002	0.0002	10.467	0.297	988	45	0.0154	0.0007	0.0018
2.112	0.027	7	13	0.0001	0.0002	0.0002	11.208	0.326	711	41	0.0115	0.0007	0.0014
2.176	0.028	8	14	0.0001	0.0002	0.0002	12.019	0.366	855	44	0.0147	0.0008	0.0018
2.243	0.029	13	14	0.0002	0.0002	0.0002	12.933	0.403	532	38	0.0095	0.0007	0.0012
2.313	0.031	7	13	0.0001	0.0002	0.0002	13.961	0.457	398	33	0.0073	0.0006	0.0010
2.387	0.031	5	14	0.0001	0.0002	0.0002	15.094	0.512	304	30	0.0056	0.0006	0.0008
2.463	0.034	8	13	0.0001	0.0002	0.0002	16.403	0.589	168	25	0.0031	0.0005	0.0006
2.546	0.035	6	14	0.0001	0.0002	0.0002	17.862	0.685	126	23	0.0023	0.0004	0.0005
2.631	0.037	3	13	0.0000	0.0002	0.0002	19.551	0.691	87	22	0.0013	0.0003	0.0004

TABLE LXXI: Measured partial cross section for the $E_\gamma = 3738.0$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	9	15	0.0001	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	0	1	0.0000	0.0000	0.0000
1.075	0.010	0	2	0.0000	0.0000	0.0000	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	0	2	0.0000	0.0000	0.0000	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	6	13	0.0001	0.0002	0.0002
1.148	0.011	0	3	0.0000	0.0000	0.0000	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	0	0	0.0000	0.0000	0.0000	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	6	13	0.0001	0.0002	0.0002
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	89	15	0.0012	0.0002	0.0002
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	601	28	0.0084	0.0004	0.0010
1.285	0.012	0	4	0.0000	0.0000	0.0000	4.103	0.073	612	28	0.0087	0.0004	0.0010
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	747	31	0.0099	0.0005	0.0012
1.346	0.014	0	13	0.0000	0.0000	0.0000	4.464	0.082	872	33	0.0118	0.0005	0.0014
1.378	0.014	5	15	0.0001	0.0003	0.0003	4.665	0.088	892	33	0.0122	0.0005	0.0014
1.412	0.014	5	14	0.0001	0.0002	0.0002	4.879	0.094	989	35	0.0132	0.0005	0.0015
1.447	0.015	11	17	0.0002	0.0003	0.0003	5.108	0.100	1079	36	0.0140	0.0005	0.0016
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	1126	38	0.0148	0.0006	0.0017
1.522	0.016	0	0	0.0000	0.0000	0.0000	5.617	0.116	1115	38	0.0150	0.0006	0.0017
1.560	0.017	5	12	0.0001	0.0002	0.0002	5.899	0.124	1081	37	0.0142	0.0006	0.0016
1.601	0.017	14	13	0.0002	0.0002	0.0002	6.205	0.135	971	36	0.0128	0.0005	0.0015
1.642	0.018	7	15	0.0001	0.0003	0.0003	6.532	0.145	925	36	0.0121	0.0005	0.0014
1.687	0.019	13	15	0.0002	0.0003	0.0003	6.891	0.158	851	35	0.0114	0.0005	0.0013
1.733	0.020	7	14	0.0001	0.0002	0.0002	7.281	0.171	681	35	0.0090	0.0005	0.0011
1.780	0.020	11	15	0.0002	0.0002	0.0002	7.695	0.186	641	35	0.0085	0.0005	0.0010
1.830	0.021	15	14	0.0002	0.0002	0.0002	8.158	0.205	630	36	0.0087	0.0005	0.0011
1.882	0.023	7	15	0.0001	0.0002	0.0002	8.658	0.223	483	35	0.0067	0.0005	0.0009
1.935	0.023	16	14	0.0002	0.0002	0.0002	9.203	0.243	537	36	0.0076	0.0005	0.0010
1.991	0.024	5	13	0.0001	0.0002	0.0002	9.809	0.270	499	37	0.0074	0.0006	0.0010
2.050	0.026	6	15	0.0001	0.0002	0.0002	10.467	0.297	485	36	0.0075	0.0006	0.0010
2.112	0.027	10	14	0.0002	0.0002	0.0002	11.208	0.326	484	36	0.0079	0.0006	0.0010
2.176	0.028	12	14	0.0002	0.0002	0.0002	12.019	0.366	590	38	0.0101	0.0007	0.0013
2.243	0.029	9	14	0.0001	0.0002	0.0002	12.933	0.403	307	32	0.0055	0.0006	0.0008
2.313	0.031	6	15	0.0001	0.0002	0.0002	13.961	0.457	261	29	0.0048	0.0005	0.0007
2.387	0.031	5	20	0.0001	0.0003	0.0003	15.094	0.512	198	27	0.0036	0.0005	0.0006
2.463	0.034	6	15	0.0001	0.0002	0.0002	16.403	0.589	124	23	0.0023	0.0004	0.0005
2.546	0.035	2	12	0.0000	0.0002	0.0002	17.862	0.685	98	22	0.0018	0.0004	0.0004
2.631	0.037	5	14	0.0001	0.0002	0.0002	19.551	0.691	139	23	0.0021	0.0004	0.0004

TABLE LXXII: Measured partial cross section for the $E_\gamma = 3807.9$–keV transition in ^{48}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	3	11	0.0000	0.0002	0.0002	2.719	0.039	3	11	0.0000	0.0002	0.0002
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	9	11	0.0002	0.0002	0.0002	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	14	12	0.0003	0.0003	0.0003	3.019	0.045	0	1	0.0000	0.0000	0.0000
1.100	0.010	1	7	0.0000	0.0001	0.0001	3.127	0.048	2	12	0.0000	0.0002	0.0002
1.122	0.009	3	9	0.0001	0.0002	0.0002	3.245	0.052	7	12	0.0001	0.0002	0.0002
1.148	0.011	3	10	0.0001	0.0002	0.0002	3.367	0.053	2	13	0.0000	0.0002	0.0002
1.174	0.011	4	11	0.0001	0.0002	0.0002	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	0	0	0.0000	0.0000	0.0000	3.636	0.061	3	11	0.0000	0.0002	0.0002
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	4	12	0.0001	0.0002	0.0002
1.256	0.012	0	0	0.0000	0.0000	0.0000	3.937	0.068	2	12	0.0000	0.0002	0.0002
1.285	0.012	2	12	0.0000	0.0002	0.0002	4.103	0.073	0	1	0.0000	0.0000	0.0000
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	1	10	0.0000	0.0002	0.0002	4.464	0.082	3	8	0.0000	0.0001	0.0001
1.378	0.014	0	1	0.0000	0.0000	0.0000	4.665	0.088	0	0	0.0000	0.0000	0.0000
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	36	11	0.0005	0.0001	0.0002
1.447	0.015	6	11	0.0001	0.0002	0.0002	5.108	0.100	156	17	0.0020	0.0002	0.0003
1.483	0.016	0	0	0.0000	0.0000	0.0000	5.350	0.107	158	18	0.0021	0.0002	0.0003
1.522	0.016	1	10	0.0000	0.0002	0.0002	5.617	0.116	208	20	0.0028	0.0003	0.0004
1.560	0.017	0	1	0.0000	0.0000	0.0000	5.899	0.124	220	21	0.0029	0.0003	0.0004
1.601	0.017	5	12	0.0001	0.0002	0.0002	6.205	0.135	202	19	0.0027	0.0003	0.0004
1.642	0.018	2	14	0.0000	0.0003	0.0003	6.532	0.145	236	22	0.0031	0.0003	0.0004
1.687	0.019	5	13	0.0001	0.0002	0.0002	6.891	0.158	267	23	0.0036	0.0003	0.0005
1.733	0.020	2	9	0.0000	0.0002	0.0002	7.281	0.171	241	23	0.0032	0.0003	0.0005
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	118	20	0.0016	0.0003	0.0003
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	198	24	0.0027	0.0003	0.0004
1.882	0.023	3	10	0.0000	0.0002	0.0002	8.658	0.223	98	21	0.0014	0.0003	0.0003
1.935	0.023	4	12	0.0001	0.0002	0.0002	9.203	0.243	81	21	0.0011	0.0003	0.0003
1.991	0.024	5	9	0.0001	0.0001	0.0001	9.809	0.270	58	20	0.0009	0.0003	0.0003
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	49	21	0.0008	0.0003	0.0003
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	24	20	0.0004	0.0003	0.0003
2.176	0.028	5	10	0.0001	0.0002	0.0002	12.019	0.366	16	19	0.0003	0.0003	0.0003
2.243	0.029	0	6	0.0000	0.0000	0.0000	12.933	0.403	17	19	0.0003	0.0003	0.0003
2.313	0.031	0	1	0.0000	0.0000	0.0000	13.961	0.457	0	0	0.0000	0.0000	0.0000
2.387	0.031	3	11	0.0000	0.0002	0.0002	15.094	0.512	9	16	0.0002	0.0003	0.0003
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	8	14	0.0001	0.0003	0.0003
2.546	0.035	0	1	0.0000	0.0000	0.0000	17.862	0.685	0	0	0.0000	0.0000	0.0000
2.631	0.037	2	11	0.0000	0.0002	0.0002	19.551	0.691	0	0	0.0000	0.0000	0.0000

TABLE LXXIII: Measured partial cross section for the $E_\gamma = 159.3$–keV transition in ^{47}Ti, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	274	64	0.0007	0.0002	0.0002	15.094	0.512	84410	324	0.2506	0.0042	0.0229
11.208	0.326	480	68	0.0013	0.0002	0.0002	16.403	0.589	103400	357	0.3134	0.0053	0.0287
12.019	0.366	4215	99	0.0118	0.0003	0.0011	17.862	0.685	113700	373	0.3400	0.0056	0.0311
12.933	0.403	22230	179	0.0643	0.0013	0.0059	19.551	0.691	117900	380	0.2932	0.0046	0.0268
13.961	0.457	54470	265	0.1614	0.0029	0.0148							

TABLE LXXIV: Measured partial cross section for the $E_\gamma = 192.3$–keV transition in ^{47}Ti, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	0	0	0.0000	0.0000	0.0000	15.094	0.512	525	61	0.0020	0.0002	0.0003
11.208	0.326	130	63	0.0004	0.0002	0.0002	16.403	0.589	1246	66	0.0047	0.0003	0.0005
12.019	0.366	9	62	0.0000	0.0002	0.0002	17.862	0.685	1463	68	0.0055	0.0003	0.0006
12.933	0.403	4	51	0.0000	0.0002	0.0002	19.551	0.691	1842	72	0.0058	0.0002	0.0006
13.961	0.457	167	58	0.0006	0.0002	0.0002							

TABLE LXXV: Measured partial cross section for the $E_\gamma = 243.6$–keV transition in ^{47}Ti, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	153	57	0.0007	0.0002	0.0003	15.094	0.512	251	52	0.0013	0.0003	0.0003
11.208	0.326	104	57	0.0005	0.0003	0.0003	16.403	0.589	263	50	0.0014	0.0003	0.0003
12.019	0.366	21	55	0.0001	0.0003	0.0003	17.862	0.685	393	52	0.0020	0.0003	0.0003
12.933	0.403	103	54	0.0005	0.0003	0.0003	19.551	0.691	549	54	0.0024	0.0002	0.0003
13.961	0.457	99	52	0.0005	0.0003	0.0003							

TABLE LXXVI: Measured partial cross section for the $E_\gamma = 539.6$–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	0	0	0.0000	0.0000	0.0000	15.094	0.512	136	46	0.0010	0.0003	0.0004
11.208	0.326	0	0	0.0000	0.0000	0.0000	16.403	0.589	471	49	0.0035	0.0004	0.0005
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	673	51	0.0049	0.0004	0.0007
12.933	0.403	11	48	0.0001	0.0003	0.0003	19.551	0.691	735	53	0.0045	0.0003	0.0006
13.961	0.457	167	48	0.0012	0.0004	0.0004							

TABLE LXXVII: Measured partial cross section for the $E_\gamma = 1093.4$–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	670	60	0.0071	0.0006	0.0010	15.094	0.512	5400	90	0.0671	0.0016	0.0073
11.208	0.326	782	61	0.0086	0.0007	0.0012	16.403	0.589	7433	102	0.0942	0.0020	0.0103
12.019	0.366	892	61	0.0104	0.0007	0.0013	17.862	0.685	8648	107	0.1081	0.0022	0.0118
12.933	0.403	971	59	0.0117	0.0007	0.0015	19.551	0.691	8420	107	0.0876	0.0017	0.0095
13.961	0.457	2598	72	0.0322	0.0010	0.0036							

TABLE LXXVIII: Measured partial cross section for the $E_\gamma = 1147.0$–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	0	0	0.0000	0.0000	0.0000	15.094	0.512	51	32	0.0007	0.0004	0.0004
11.208	0.326	0	0	0.0000	0.0000	0.0000	16.403	0.589	316	36	0.0041	0.0005	0.0007
12.019	0.366	22	37	0.0003	0.0004	0.0004	17.862	0.685	850	44	0.0110	0.0006	0.0013
12.933	0.403	0	0	0.0000	0.0000	0.0000	19.551	0.691	1417	51	0.0153	0.0006	0.0017
13.961	0.457	0	0	0.0000	0.0000	0.0000							

TABLE LXXIX: Measured partial cross section for the E_γ = 1251.5–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	0	0	0.0000	0.0000	0.0000	15.094	0.512	137	32	0.0019	0.0004	0.0005
11.208	0.326	0	0	0.0000	0.0000	0.0000	16.403	0.589	243	33	0.0035	0.0005	0.0006
12.019	0.366	0	3	0.0000	0.0000	0.0000	17.862	0.685	314	35	0.0044	0.0005	0.0007
12.933	0.403	43	34	0.0006	0.0005	0.0005	19.551	0.691	271	36	0.0032	0.0004	0.0005
13.961	0.457	55	32	0.0008	0.0004	0.0005							

TABLE LXXX: Measured partial cross section for the E_γ = 1284.8–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	0	0	0.0000	0.0000	0.0000	15.094	0.512	2462	60	0.0349	0.0010	0.0039
11.208	0.326	0	0	0.0000	0.0000	0.0000	16.403	0.589	4565	76	0.0661	0.0015	0.0072
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	6527	88	0.0933	0.0020	0.0102
12.933	0.403	0	0	0.0000	0.0000	0.0000	19.551	0.691	7589	95	0.0902	0.0018	0.0098
13.961	0.457	677	41	0.0096	0.0006	0.0012							

TABLE LXXXI: Measured partial cross section for the E_γ = 1304.6–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	15	36	0.0002	0.0004	0.0004	15.094	0.512	75	31	0.0011	0.0005	0.0005
11.208	0.326	16	36	0.0002	0.0005	0.0005	16.403	0.589	337	35	0.0050	0.0005	0.0007
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	619	40	0.0090	0.0006	0.0011
12.933	0.403	43	34	0.0006	0.0005	0.0005	19.551	0.691	1133	48	0.0138	0.0006	0.0016
13.961	0.457	12	31	0.0002	0.0004	0.0004							

TABLE LXXXII: Measured partial cross section for the E_γ = 1390.5–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	14	32	0.0002	0.0004	0.0004	15.094	0.512	463	35	0.0070	0.0005	0.0009
11.208	0.326	0	0	0.0000	0.0000	0.0000	16.403	0.589	862	41	0.0133	0.0007	0.0016
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	984	43	0.0149	0.0007	0.0017
12.933	0.403	0	0	0.0000	0.0000	0.0000	19.551	0.691	964	43	0.0122	0.0006	0.0014
13.961	0.457	80	29	0.0012	0.0004	0.0005							

TABLE LXXXIII: Measured partial cross section for the E_γ = 1430.8–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	103	34	0.0014	0.0004	0.0005	15.094	0.512	303	32	0.0047	0.0005	0.0007
11.208	0.326	110	33	0.0015	0.0005	0.0005	16.403	0.589	592	36	0.0094	0.0006	0.0012
12.019	0.366	211	34	0.0031	0.0005	0.0006	17.862	0.685	949	41	0.0148	0.0007	0.0017
12.933	0.403	213	33	0.0032	0.0005	0.0006	19.551	0.691	1283	46	0.0166	0.0006	0.0019
13.961	0.457	124	30	0.0019	0.0005	0.0005							

TABLE LXXXIV: Measured partial cross section for the E_γ = 1549.9–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	40	32	0.0006	0.0004	0.0005	15.094	0.512	421	34	0.0069	0.0006	0.0009
11.208	0.326	0	0	0.0000	0.0000	0.0000	16.403	0.589	666	38	0.0112	0.0007	0.0014
12.019	0.366	71	32	0.0011	0.0005	0.0005	17.862	0.685	866	41	0.0144	0.0007	0.0017
12.933	0.403	18	29	0.0003	0.0005	0.0005	19.551	0.691	881	42	0.0122	0.0006	0.0014
13.961	0.457	156	30	0.0026	0.0005	0.0006							

TABLE LXXXV: Measured partial cross section for the E_γ = 1793.9–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	25	32	0.0004	0.0005	0.0005	15.094	0.512	162	29	0.0030	0.0005	0.0006
11.208	0.326	45	32	0.0007	0.0005	0.0005	16.403	0.589	193	29	0.0036	0.0005	0.0007
12.019	0.366	75	32	0.0013	0.0006	0.0006	17.862	0.685	241	30	0.0044	0.0006	0.0007
12.933	0.403	0	0	0.0000	0.0000	0.0000	19.551	0.691	256	31	0.0039	0.0005	0.0006
13.961	0.457	58	28	0.0011	0.0005	0.0005							

TABLE LXXXVI: Measured partial cross section for the E_γ = 1825.1–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	25	29	0.0004	0.0005	0.0005	15.094	0.512	606	35	0.0111	0.0007	0.0014
11.208	0.326	22	29	0.0004	0.0005	0.0005	16.403	0.589	1273	44	0.0237	0.0009	0.0027
12.019	0.366	28	28	0.0005	0.0005	0.0005	17.862	0.685	1639	48	0.0301	0.0010	0.0034
12.933	0.403	0	0	0.0000	0.0000	0.0000	19.551	0.691	1826	51	0.0279	0.0009	0.0031
13.961	0.457	159	28	0.0029	0.0005	0.0006							

TABLE LXXXVII: Measured partial cross section for the E_γ = 2004.1–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	5	29	0.0001	0.0005	0.0005	15.094	0.512	40	24	0.0007	0.0004	0.0004
11.208	0.326	16	29	0.0003	0.0005	0.0005	16.403	0.589	229	27	0.0043	0.0005	0.0007
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	210	27	0.0039	0.0005	0.0006
12.933	0.403	53	28	0.0009	0.0005	0.0005	19.551	0.691	174	26	0.0027	0.0004	0.0005
13.961	0.457	3	24	0.0001	0.0004	0.0004							

TABLE LXXXVIII: Measured partial cross section for the E_γ = 2009.4–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	39	30	0.0006	0.0005	0.0005	15.094	0.512	143	27	0.0026	0.0005	0.0006
11.208	0.326	31	30	0.0005	0.0005	0.0005	16.403	0.589	237	28	0.0044	0.0005	0.0007
12.019	0.366	22	29	0.0004	0.0005	0.0005	17.862	0.685	291	29	0.0054	0.0005	0.0008
12.933	0.403	8	27	0.0001	0.0005	0.0005	19.551	0.691	298	29	0.0046	0.0004	0.0007
13.961	0.457	76	27	0.0014	0.0005	0.0005							

TABLE LXXXIX: Measured partial cross section for the E_γ = 2259.3–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	0	0	0.0000	0.0000	0.0000	15.094	0.512	156	26	0.0028	0.0005	0.0006
11.208	0.326	26	28	0.0004	0.0005	0.0005	16.403	0.589	405	30	0.0076	0.0006	0.0010
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	503	32	0.0092	0.0006	0.0012
12.933	0.403	13	26	0.0002	0.0005	0.0005	19.551	0.691	659	35	0.0101	0.0006	0.0012
13.961	0.457	4	23	0.0001	0.0004	0.0004							

TABLE XC: Measured partial cross section for the E_γ = 2298.2–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	96	30	0.0015	0.0005	0.0005	15.094	0.512	154	25	0.0028	0.0005	0.0005
11.208	0.326	86	29	0.0014	0.0005	0.0005	16.403	0.589	262	26	0.0049	0.0005	0.0007
12.019	0.366	44	28	0.0008	0.0005	0.0005	17.862	0.685	303	27	0.0056	0.0005	0.0008
12.933	0.403	52	26	0.0009	0.0005	0.0005	19.551	0.691	258	27	0.0039	0.0004	0.0006
13.961	0.457	64	24	0.0012	0.0004	0.0005							

TABLE XCI: Measured partial cross section for the $E_\gamma = 2784.5$–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	22	24	0.0003	0.0004	0.0004	15.094	0.512	5	19	0.0001	0.0003	0.0003
11.208	0.326	15	24	0.0002	0.0004	0.0004	16.403	0.589	166	22	0.0031	0.0004	0.0005
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	277	25	0.0051	0.0005	0.0007
12.933	0.403	17	22	0.0003	0.0004	0.0004	19.551	0.691	359	27	0.0055	0.0004	0.0007
13.961	0.457	0	0	0.0000	0.0000	0.0000							

TABLE XCII: Measured partial cross section for the $E_\gamma = 2799.7$–keV transition in ^{47}Ti, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
10.467	0.297	25	24	0.0004	0.0004	0.0004	15.094	0.512	45	20	0.0008	0.0004	0.0004
11.208	0.326	0	0	0.0000	0.0000	0.0000	16.403	0.589	145	21	0.0027	0.0004	0.0005
12.019	0.366	0	0	0.0000	0.0000	0.0000	17.862	0.685	285	24	0.0052	0.0004	0.0007
12.933	0.403	14	22	0.0002	0.0004	0.0004	19.551	0.691	256	24	0.0039	0.0004	0.0006
13.961	0.457	0	0	0.0000	0.0000	0.0000							

TABLE XCIII: Measured partial cross section for the $E_\gamma = 121.4$–keV transition in ^{48}Sc, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	65	38	0.0001	0.0001	0.0001	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	3	31	0.0000	0.0001	0.0001	2.815	0.041	110	46	0.0002	0.0001	0.0001
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	46	47	0.0001	0.0001	0.0001
1.075	0.010	9	36	0.0000	0.0001	0.0001	3.019	0.045	158	50	0.0003	0.0001	0.0001
1.100	0.010	64	36	0.0002	0.0001	0.0001	3.127	0.048	93	52	0.0002	0.0001	0.0001
1.122	0.009	28	36	0.0001	0.0001	0.0001	3.245	0.052	130	54	0.0003	0.0001	0.0001
1.148	0.011	32	30	0.0001	0.0001	0.0001	3.367	0.053	169	56	0.0003	0.0001	0.0001
1.174	0.011	12	31	0.0000	0.0001	0.0001	3.498	0.056	280	58	0.0005	0.0001	0.0001
1.198	0.012	69	38	0.0002	0.0001	0.0001	3.636	0.061	213	57	0.0004	0.0001	0.0001
1.227	0.012	21	37	0.0001	0.0001	0.0001	3.782	0.064	113	55	0.0002	0.0001	0.0001
1.256	0.012	2	16	0.0000	0.0000	0.0000	3.937	0.068	95	54	0.0002	0.0001	0.0001
1.285	0.012	111	42	0.0002	0.0001	0.0001	4.103	0.073	70	55	0.0001	0.0001	0.0001
1.314	0.013	51	41	0.0001	0.0001	0.0001	4.279	0.076	32	56	0.0001	0.0001	0.0001

TABLE XCIII: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	38	56	0.0001	0.0001	0.0001
1.378	0.014	0	0	0.0000	0.0000	0.0000	4.665	0.088	0	0	0.0000	0.0000	0.0000
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	166	60	0.0003	0.0001	0.0001
1.447	0.015	3	39	0.0000	0.0001	0.0001	5.108	0.100	368	63	0.0006	0.0001	0.0001
1.483	0.016	26	39	0.0001	0.0001	0.0001	5.350	0.107	420	64	0.0007	0.0001	0.0001
1.522	0.016	0	5	0.0000	0.0000	0.0000	5.617	0.116	733	69	0.0013	0.0001	0.0002
1.560	0.017	1	16	0.0000	0.0000	0.0000	5.899	0.124	871	70	0.0015	0.0001	0.0002
1.601	0.017	0	2	0.0000	0.0000	0.0000	6.205	0.135	1290	73	0.0023	0.0001	0.0003
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	2218	81	0.0039	0.0002	0.0005
1.687	0.019	24	38	0.0001	0.0001	0.0001	6.891	0.158	3274	89	0.0058	0.0002	0.0007
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	4605	99	0.0080	0.0002	0.0009
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	5908	107	0.0104	0.0002	0.0012
1.830	0.021	2	43	0.0000	0.0001	0.0001	8.158	0.205	7561	115	0.0138	0.0003	0.0016
1.882	0.023	30	42	0.0001	0.0001	0.0001	8.658	0.223	9219	123	0.0169	0.0003	0.0019
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	10900	131	0.0205	0.0004	0.0023
1.991	0.024	0	2	0.0000	0.0000	0.0000	9.809	0.270	12710	139	0.0251	0.0005	0.0028
2.050	0.026	1	12	0.0000	0.0000	0.0000	10.467	0.297	14120	145	0.0291	0.0006	0.0032
2.112	0.027	24	41	0.0000	0.0001	0.0001	11.208	0.326	15340	150	0.0330	0.0007	0.0037
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	16850	156	0.0384	0.0008	0.0043
2.243	0.029	11	40	0.0000	0.0001	0.0001	12.933	0.403	17680	159	0.0417	0.0008	0.0047
2.313	0.031	14	37	0.0000	0.0001	0.0001	13.961	0.457	18290	162	0.0442	0.0009	0.0049
2.387	0.031	44	42	0.0001	0.0001	0.0001	15.094	0.512	17360	158	0.0420	0.0008	0.0047
2.463	0.034	4	32	0.0000	0.0001	0.0001	16.403	0.589	14690	148	0.0363	0.0007	0.0040
2.546	0.035	78	45	0.0002	0.0001	0.0001	17.862	0.685	11970	137	0.0292	0.0006	0.0033
2.631	0.037	50	44	0.0001	0.0001	0.0001	19.551	0.691	9399	125	0.0191	0.0004	0.0021

TABLE XCIV: Measured partial cross section for the $E_\gamma = 130.9$–keV transition in ^{48}Sc, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	0	0	0.0000	0.0000	0.0000	2.719	0.039	62	42	0.0001	0.0001	0.0001
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	74	43	0.0002	0.0001	0.0001
1.053	0.009	0	0	0.0000	0.0000	0.0000	2.913	0.043	80	44	0.0002	0.0001	0.0001
1.075	0.010	0	0	0.0000	0.0000	0.0000	3.019	0.045	29	44	0.0001	0.0001	0.0001
1.100	0.010	0	0	0.0000	0.0000	0.0000	3.127	0.048	90	49	0.0002	0.0001	0.0001
1.122	0.009	0	0	0.0000	0.0000	0.0000	3.245	0.052	118	51	0.0002	0.0001	0.0001
1.148	0.011	28	26	0.0001	0.0001	0.0001	3.367	0.053	96	52	0.0002	0.0001	0.0001
1.174	0.011	2	12	0.0000	0.0000	0.0000	3.498	0.056	102	52	0.0002	0.0001	0.0001
1.198	0.012	4	26	0.0000	0.0001	0.0001	3.636	0.061	196	54	0.0004	0.0001	0.0001
1.227	0.012	0	2	0.0000	0.0000	0.0000	3.782	0.064	205	53	0.0004	0.0001	0.0001
1.256	0.012	0	3	0.0000	0.0000	0.0000	3.937	0.068	105	51	0.0002	0.0001	0.0001
1.285	0.012	32	38	0.0001	0.0001	0.0001	4.103	0.073	108	51	0.0002	0.0001	0.0001
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	51	52	0.0001	0.0001	0.0001
1.346	0.014	14	36	0.0000	0.0001	0.0001	4.464	0.082	81	52	0.0002	0.0001	0.0001
1.378	0.014	0	0	0.0000	0.0000	0.0000	4.665	0.088	23	51	0.0000	0.0001	0.0001
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	131	55	0.0002	0.0001	0.0001

TABLE XCIV: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.447	0.015	0	0	0.0000	0.0000	0.0000	5.108	0.100	263	57	0.0005	0.0001	0.0001
1.483	0.016	0	1	0.0000	0.0000	0.0000	5.350	0.107	395	60	0.0007	0.0001	0.0001
1.522	0.016	0	4	0.0000	0.0000	0.0000	5.617	0.116	834	66	0.0015	0.0001	0.0002
1.560	0.017	9	34	0.0000	0.0001	0.0001	5.899	0.124	1131	68	0.0020	0.0001	0.0003
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	1759	74	0.0032	0.0001	0.0004
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	2780	82	0.0050	0.0002	0.0006
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	3841	90	0.0071	0.0002	0.0008
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	5239	99	0.0095	0.0002	0.0011
1.780	0.020	5	36	0.0000	0.0001	0.0001	7.695	0.186	6648	107	0.0122	0.0003	0.0014
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	8327	115	0.0158	0.0003	0.0018
1.882	0.023	15	35	0.0000	0.0001	0.0001	8.658	0.223	9887	122	0.0188	0.0004	0.0021
1.935	0.023	4	36	0.0000	0.0001	0.0001	9.203	0.243	11900	131	0.0232	0.0004	0.0026
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	13980	139	0.0286	0.0005	0.0032
2.050	0.026	2	14	0.0000	0.0000	0.0000	10.467	0.297	15550	146	0.0333	0.0006	0.0037
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	17050	152	0.0381	0.0007	0.0043
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	18520	158	0.0439	0.0009	0.0049
2.243	0.029	0	1	0.0000	0.0000	0.0000	12.933	0.403	20260	164	0.0496	0.0010	0.0055
2.313	0.031	53	38	0.0001	0.0001	0.0001	13.961	0.457	20880	166	0.0524	0.0010	0.0058
2.387	0.031	69	39	0.0001	0.0001	0.0001	15.094	0.512	20060	163	0.0504	0.0009	0.0056
2.463	0.034	94	40	0.0002	0.0001	0.0001	16.403	0.589	17180	153	0.0441	0.0008	0.0049
2.546	0.035	79	42	0.0002	0.0001	0.0001	17.862	0.685	13680	140	0.0346	0.0007	0.0039
2.631	0.037	38	41	0.0001	0.0001	0.0001	19.551	0.691	10890	129	0.0229	0.0004	0.0026

TABLE XCV: Measured partial cross section for the $E_\gamma = 370.3$–keV transition in ^{48}Sc, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	20	36	0.0001	0.0002	0.0002	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	0	0	0.0000	0.0000	0.0000	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	3	34	0.0000	0.0002	0.0002	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	23	31	0.0002	0.0002	0.0002	3.019	0.045	48	49	0.0002	0.0002	0.0002
1.100	0.010	21	29	0.0001	0.0002	0.0002	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	50	35	0.0003	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	5	18	0.0000	0.0001	0.0001	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	0	4	0.0000	0.0000	0.0000	3.498	0.056	36	57	0.0002	0.0002	0.0002
1.198	0.012	56	39	0.0003	0.0002	0.0002	3.636	0.061	44	58	0.0002	0.0003	0.0003
1.227	0.012	0	0	0.0000	0.0000	0.0000	3.782	0.064	4	42	0.0000	0.0002	0.0002
1.256	0.012	80	43	0.0004	0.0002	0.0002	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	122	46	0.0006	0.0002	0.0002	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	152	44	0.0007	0.0002	0.0002	4.279	0.076	25	56	0.0001	0.0002	0.0002
1.346	0.014	53	41	0.0003	0.0002	0.0002	4.464	0.082	7	55	0.0000	0.0002	0.0002
1.378	0.014	39	40	0.0002	0.0002	0.0002	4.665	0.088	3	42	0.0000	0.0002	0.0002
1.412	0.014	0	0	0.0000	0.0000	0.0000	4.879	0.094	12	56	0.0000	0.0002	0.0002
1.447	0.015	120	42	0.0006	0.0002	0.0002	5.108	0.100	0	1	0.0000	0.0000	0.0000
1.483	0.016	52	40	0.0003	0.0002	0.0002	5.350	0.107	0	0	0.0000	0.0000	0.0000
1.522	0.016	68	41	0.0004	0.0002	0.0002	5.617	0.116	94	60	0.0004	0.0002	0.0003

TABLE XCV: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.560	0.017	116	43	0.0006	0.0002	0.0002	5.899	0.124	110	60	0.0004	0.0002	0.0002
1.601	0.017	98	43	0.0005	0.0002	0.0002	6.205	0.135	197	61	0.0008	0.0002	0.0003
1.642	0.018	42	42	0.0002	0.0002	0.0002	6.532	0.145	584	65	0.0023	0.0003	0.0004
1.687	0.019	118	43	0.0006	0.0002	0.0002	6.891	0.158	842	68	0.0035	0.0003	0.0005
1.733	0.020	43	41	0.0002	0.0002	0.0002	7.281	0.171	1317	73	0.0053	0.0003	0.0006
1.780	0.020	26	43	0.0001	0.0002	0.0002	7.695	0.186	1880	78	0.0077	0.0003	0.0009
1.830	0.021	66	44	0.0003	0.0002	0.0002	8.158	0.205	2152	80	0.0091	0.0004	0.0010
1.882	0.023	174	46	0.0008	0.0002	0.0002	8.658	0.223	2874	85	0.0122	0.0004	0.0014
1.935	0.023	47	44	0.0002	0.0002	0.0002	9.203	0.243	3328	88	0.0145	0.0004	0.0016
1.991	0.024	38	42	0.0002	0.0002	0.0002	9.809	0.270	4003	92	0.0183	0.0005	0.0020
2.050	0.026	27	42	0.0001	0.0002	0.0002	10.467	0.297	4527	95	0.0216	0.0006	0.0024
2.112	0.027	81	43	0.0004	0.0002	0.0002	11.208	0.326	4646	96	0.0231	0.0006	0.0026
2.176	0.028	0	2	0.0000	0.0000	0.0000	12.019	0.366	5132	98	0.0271	0.0007	0.0030
2.243	0.029	0	2	0.0000	0.0000	0.0000	12.933	0.403	5360	98	0.0292	0.0007	0.0032
2.313	0.031	39	40	0.0002	0.0002	0.0002	13.961	0.457	5502	97	0.0307	0.0008	0.0034
2.387	0.031	19	42	0.0001	0.0002	0.0002	15.094	0.512	5453	96	0.0305	0.0007	0.0033
2.463	0.034	56	44	0.0003	0.0002	0.0002	16.403	0.589	4547	89	0.0260	0.0007	0.0029
2.546	0.035	21	42	0.0001	0.0002	0.0002	17.862	0.685	3573	83	0.0201	0.0006	0.0022
2.631	0.037	30	45	0.0001	0.0002	0.0002	19.551	0.691	3120	80	0.0146	0.0004	0.0016

TABLE XCVI: Measured partial cross section for the $E_\gamma = 519.9$–keV transition in ^{48}Sc, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	353	26	0.0020	0.0003	0.0004	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	331	26	0.0025	0.0004	0.0005	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	223	24	0.0018	0.0003	0.0003	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	321	27	0.0029	0.0004	0.0005	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	233	26	0.0019	0.0003	0.0004	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	168	25	0.0011	0.0002	0.0002	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	201	27	0.0016	0.0003	0.0003	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	197	29	0.0012	0.0002	0.0002	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	222	29	0.0016	0.0002	0.0003	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	241	31	0.0017	0.0003	0.0003	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	197	33	0.0013	0.0002	0.0003	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	205	36	0.0012	0.0002	0.0003	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	176	35	0.0011	0.0002	0.0003	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	144	33	0.0010	0.0002	0.0002	4.464	0.082	0	0	0.0000	0.0000	0.0000
1.378	0.014	96	33	0.0006	0.0002	0.0002	4.665	0.088	0	0	0.0000	0.0000	0.0000
1.412	0.014	42	33	0.0003	0.0002	0.0002	4.879	0.094	0	0	0.0000	0.0000	0.0000
1.447	0.015	50	33	0.0003	0.0002	0.0002	5.108	0.100	0	0	0.0000	0.0000	0.0000
1.483	0.016	21	33	0.0001	0.0002	0.0002	5.350	0.107	0	0	0.0000	0.0000	0.0000
1.522	0.016	81	34	0.0005	0.0002	0.0002	5.617	0.116	0	0	0.0000	0.0000	0.0000
1.560	0.017	0	0	0.0000	0.0000	0.0000	5.899	0.124	0	0	0.0000	0.0000	0.0000
1.601	0.017	0	0	0.0000	0.0000	0.0000	6.205	0.135	0	0	0.0000	0.0000	0.0000
1.642	0.018	0	0	0.0000	0.0000	0.0000	6.532	0.145	84	54	0.0004	0.0003	0.0003

TABLE XCVI: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.687	0.019	0	0	0.0000	0.0000	0.0000	6.891	0.158	158	55	0.0008	0.0003	0.0003
1.733	0.020	10	34	0.0001	0.0002	0.0002	7.281	0.171	183	57	0.0009	0.0003	0.0003
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	305	59	0.0016	0.0003	0.0004
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	442	60	0.0024	0.0003	0.0004
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	618	62	0.0033	0.0003	0.0005
1.935	0.023	0	0	0.0000	0.0000	0.0000	9.203	0.243	772	63	0.0043	0.0004	0.0006
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	1056	65	0.0061	0.0004	0.0008
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	1063	64	0.0065	0.0004	0.0008
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	1292	66	0.0082	0.0004	0.0010
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	1325	65	0.0089	0.0005	0.0011
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	1367	64	0.0095	0.0005	0.0011
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	1269	61	0.0090	0.0005	0.0011
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	1268	59	0.0090	0.0004	0.0011
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	1077	56	0.0078	0.0004	0.0009
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	976	55	0.0070	0.0004	0.0009
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	765	53	0.0046	0.0003	0.0006

TABLE XCVII: Measured partial cross section for the $E_\gamma = 779.0$–keV transition in ^{48}Sc, extracted from coaxial data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	189	24	0.0015	0.0003	0.0003	2.719	0.039	20	51	0.0002	0.0004	0.0004
1.031	0.010	90	23	0.0009	0.0003	0.0003	2.815	0.041	73	52	0.0006	0.0004	0.0004
1.053	0.009	129	24	0.0014	0.0003	0.0003	2.913	0.043	132	54	0.0010	0.0004	0.0004
1.075	0.010	94	26	0.0012	0.0003	0.0004	3.019	0.045	86	55	0.0007	0.0004	0.0004
1.100	0.010	73	27	0.0008	0.0003	0.0003	3.127	0.048	77	58	0.0006	0.0004	0.0004
1.122	0.009	83	29	0.0008	0.0003	0.0003	3.245	0.052	178	60	0.0014	0.0005	0.0005
1.148	0.011	80	29	0.0008	0.0003	0.0003	3.367	0.053	156	62	0.0012	0.0005	0.0005
1.174	0.011	171	33	0.0015	0.0003	0.0003	3.498	0.056	91	63	0.0007	0.0005	0.0005
1.198	0.012	133	32	0.0013	0.0003	0.0004	3.636	0.061	117	64	0.0009	0.0005	0.0005
1.227	0.012	73	31	0.0007	0.0003	0.0003	3.782	0.064	97	62	0.0007	0.0005	0.0005
1.256	0.012	130	38	0.0011	0.0003	0.0004	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	106	35	0.0008	0.0003	0.0003	4.103	0.073	4	60	0.0000	0.0005	0.0005
1.314	0.013	123	37	0.0010	0.0003	0.0003	4.279	0.076	221	64	0.0016	0.0005	0.0005
1.346	0.014	84	34	0.0008	0.0003	0.0003	4.464	0.082	109	63	0.0008	0.0005	0.0005
1.378	0.014	146	37	0.0013	0.0003	0.0004	4.665	0.088	41	63	0.0003	0.0005	0.0005
1.412	0.014	74	40	0.0007	0.0004	0.0004	4.879	0.094	117	64	0.0008	0.0005	0.0005
1.447	0.015	109	40	0.0010	0.0004	0.0004	5.108	0.100	0	15	0.0000	0.0000	0.0000
1.483	0.016	162	38	0.0015	0.0004	0.0004	5.350	0.107	159	66	0.0011	0.0005	0.0005
1.522	0.016	123	39	0.0011	0.0004	0.0004	5.617	0.116	216	68	0.0015	0.0005	0.0005
1.560	0.017	79	39	0.0007	0.0003	0.0004	5.899	0.124	0	0	0.0000	0.0000	0.0000
1.601	0.017	150	39	0.0014	0.0004	0.0004	6.205	0.135	9	54	0.0001	0.0004	0.0004
1.642	0.018	161	40	0.0015	0.0004	0.0004	6.532	0.145	147	67	0.0010	0.0005	0.0005
1.687	0.019	154	41	0.0014	0.0004	0.0004	6.891	0.158	270	69	0.0019	0.0005	0.0005
1.733	0.020	93	40	0.0008	0.0004	0.0004	7.281	0.171	251	69	0.0017	0.0005	0.0005
1.780	0.020	98	45	0.0008	0.0004	0.0004	7.695	0.186	294	70	0.0021	0.0005	0.0005

TABLE XCVII: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.830	0.021	76	43	0.0006	0.0004	0.0004	8.158	0.205	229	69	0.0017	0.0005	0.0005
1.882	0.023	86	46	0.0007	0.0004	0.0004	8.658	0.223	597	71	0.0044	0.0005	0.0007
1.935	0.023	236	47	0.0019	0.0004	0.0004	9.203	0.243	601	71	0.0045	0.0005	0.0007
1.991	0.024	34	45	0.0003	0.0004	0.0004	9.809	0.270	679	71	0.0053	0.0006	0.0008
2.050	0.026	15	43	0.0001	0.0004	0.0004	10.467	0.297	649	69	0.0053	0.0006	0.0008
2.112	0.027	118	45	0.0010	0.0004	0.0004	11.208	0.326	668	68	0.0057	0.0006	0.0009
2.176	0.028	121	44	0.0010	0.0004	0.0004	12.019	0.366	765	68	0.0070	0.0006	0.0010
2.243	0.029	145	46	0.0012	0.0004	0.0004	12.933	0.403	843	66	0.0079	0.0006	0.0011
2.313	0.031	78	45	0.0006	0.0004	0.0004	13.961	0.457	870	62	0.0084	0.0006	0.0011
2.387	0.031	85	47	0.0007	0.0004	0.0004	15.094	0.512	800	58	0.0077	0.0006	0.0010
2.463	0.034	183	50	0.0015	0.0004	0.0004	16.403	0.589	795	55	0.0078	0.0006	0.0010
2.546	0.035	151	54	0.0013	0.0004	0.0005	17.862	0.685	600	52	0.0058	0.0005	0.0008
2.631	0.037	71	52	0.0006	0.0004	0.0004	19.551	0.691	521	52	0.0042	0.0004	0.0006

TABLE XCVIII: Measured partial cross section for the $E_\gamma = 174.4$–keV transition in ^{45}Ca, extracted from planar data. The centroid of the the neutron energy distribution is given in column 1, the standard deviation is given in column 2. The statistical error is given for the photopeak area, and both statistical and total errors are quoted for the partial cross section. The total error is obtained as the sum in quadrature of the statistical and systematic errors.

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.009	0.009	81	38	0.0002	0.0001	0.0001	2.719	0.039	0	0	0.0000	0.0000	0.0000
1.031	0.010	19	36	0.0001	0.0001	0.0001	2.815	0.041	0	0	0.0000	0.0000	0.0000
1.053	0.009	40	36	0.0001	0.0001	0.0001	2.913	0.043	0	0	0.0000	0.0000	0.0000
1.075	0.010	69	35	0.0003	0.0002	0.0002	3.019	0.045	0	0	0.0000	0.0000	0.0000
1.100	0.010	99	35	0.0004	0.0001	0.0001	3.127	0.048	0	0	0.0000	0.0000	0.0000
1.122	0.009	106	36	0.0003	0.0001	0.0001	3.245	0.052	0	0	0.0000	0.0000	0.0000
1.148	0.011	62	35	0.0002	0.0001	0.0001	3.367	0.053	0	0	0.0000	0.0000	0.0000
1.174	0.011	97	36	0.0003	0.0001	0.0001	3.498	0.056	0	0	0.0000	0.0000	0.0000
1.198	0.012	86	36	0.0003	0.0001	0.0001	3.636	0.061	0	0	0.0000	0.0000	0.0000
1.227	0.012	113	37	0.0004	0.0001	0.0001	3.782	0.064	0	0	0.0000	0.0000	0.0000
1.256	0.012	5	32	0.0000	0.0001	0.0001	3.937	0.068	0	0	0.0000	0.0000	0.0000
1.285	0.012	17	40	0.0000	0.0001	0.0001	4.103	0.073	0	0	0.0000	0.0000	0.0000
1.314	0.013	0	0	0.0000	0.0000	0.0000	4.279	0.076	0	0	0.0000	0.0000	0.0000
1.346	0.014	0	0	0.0000	0.0000	0.0000	4.464	0.082	86	58	0.0002	0.0001	0.0001
1.378	0.014	1	25	0.0000	0.0001	0.0001	4.665	0.088	0	0	0.0000	0.0000	0.0000
1.412	0.014	30	38	0.0001	0.0001	0.0001	4.879	0.094	0	0	0.0000	0.0000	0.0000
1.447	0.015	27	39	0.0001	0.0001	0.0001	5.108	0.100	0	13	0.0000	0.0000	0.0000
1.483	0.016	35	38	0.0001	0.0001	0.0001	5.350	0.107	0	0	0.0000	0.0000	0.0000
1.522	0.016	16	39	0.0001	0.0001	0.0001	5.617	0.116	0	0	0.0000	0.0000	0.0000
1.560	0.017	40	39	0.0001	0.0001	0.0001	5.899	0.124	4	50	0.0000	0.0001	0.0001
1.601	0.017	26	39	0.0001	0.0001	0.0001	6.205	0.135	0	0	0.0000	0.0000	0.0000
1.642	0.018	61	40	0.0002	0.0001	0.0001	6.532	0.145	221	70	0.0005	0.0002	0.0002
1.687	0.019	5	38	0.0000	0.0001	0.0001	6.891	0.158	270	72	0.0007	0.0002	0.0002
1.733	0.020	0	0	0.0000	0.0000	0.0000	7.281	0.171	209	74	0.0005	0.0002	0.0002
1.780	0.020	0	0	0.0000	0.0000	0.0000	7.695	0.186	474	79	0.0011	0.0002	0.0002
1.830	0.021	0	0	0.0000	0.0000	0.0000	8.158	0.205	626	80	0.0016	0.0002	0.0003
1.882	0.023	0	0	0.0000	0.0000	0.0000	8.658	0.223	967	83	0.0024	0.0002	0.0003
1.935	0.023	10	42	0.0000	0.0001	0.0001	9.203	0.243	1092	84	0.0028	0.0002	0.0004

TABLE XCVIII: (Continued).

E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.	E_n (MeV)	σ_E (MeV)	Area	Stat. Err.	σ_γ (b)	Stat. Err.	Tot. Err.
1.991	0.024	0	0	0.0000	0.0000	0.0000	9.809	0.270	1479	88	0.0040	0.0002	0.0005
2.050	0.026	0	0	0.0000	0.0000	0.0000	10.467	0.297	1894	92	0.0054	0.0003	0.0007
2.112	0.027	0	0	0.0000	0.0000	0.0000	11.208	0.326	2188	95	0.0065	0.0003	0.0008
2.176	0.028	0	0	0.0000	0.0000	0.0000	12.019	0.366	2730	99	0.0086	0.0003	0.0010
2.243	0.029	0	0	0.0000	0.0000	0.0000	12.933	0.403	3197	101	0.0104	0.0004	0.0012
2.313	0.031	0	0	0.0000	0.0000	0.0000	13.961	0.457	3536	101	0.0117	0.0004	0.0013
2.387	0.031	0	0	0.0000	0.0000	0.0000	15.094	0.512	3757	100	0.0125	0.0004	0.0014
2.463	0.034	0	0	0.0000	0.0000	0.0000	16.403	0.589	3632	96	0.0123	0.0004	0.0014
2.546	0.035	0	0	0.0000	0.0000	0.0000	17.862	0.685	3141	91	0.0105	0.0003	0.0012
2.631	0.037	0	0	0.0000	0.0000	0.0000	19.551	0.691	2311	84	0.0064	0.0003	0.0008

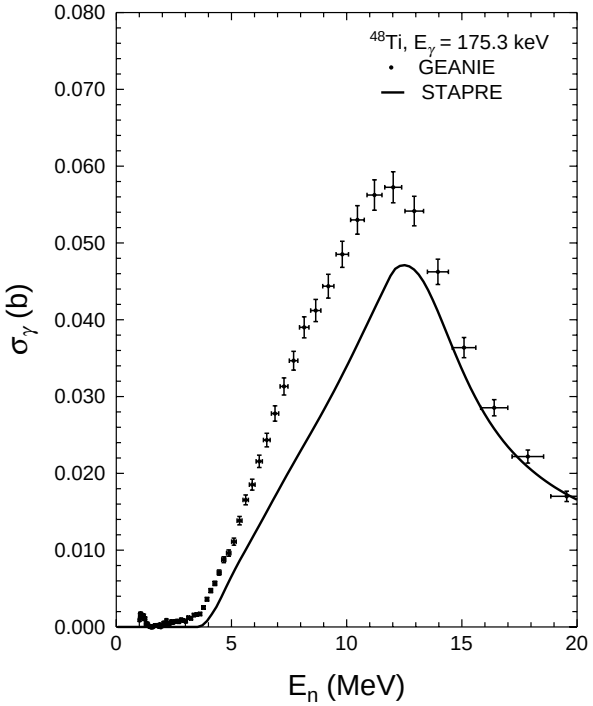

FIG. 28: Partial cross section for the $E_\gamma = 175.3$-keV transition in ^{48}Ti, extracted from planar data. The data are compared to a STAPRE prediction.

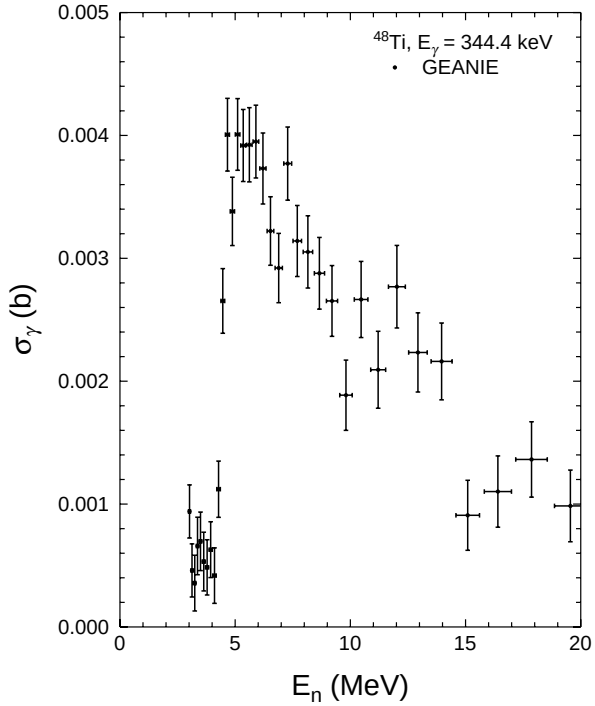

FIG. 29: Partial cross section for the $E_\gamma = 344.4$-keV transition in ^{48}Ti, extracted from planar data.

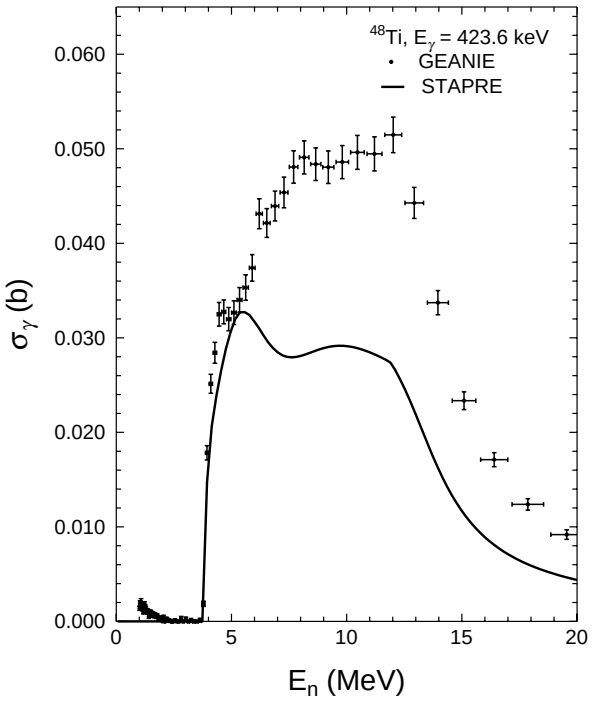

FIG. 30: Partial cross section for the $E_\gamma = 423.6$-keV transition in ^{48}Ti, extracted from planar data. The data are compared to a STAPRE prediction.

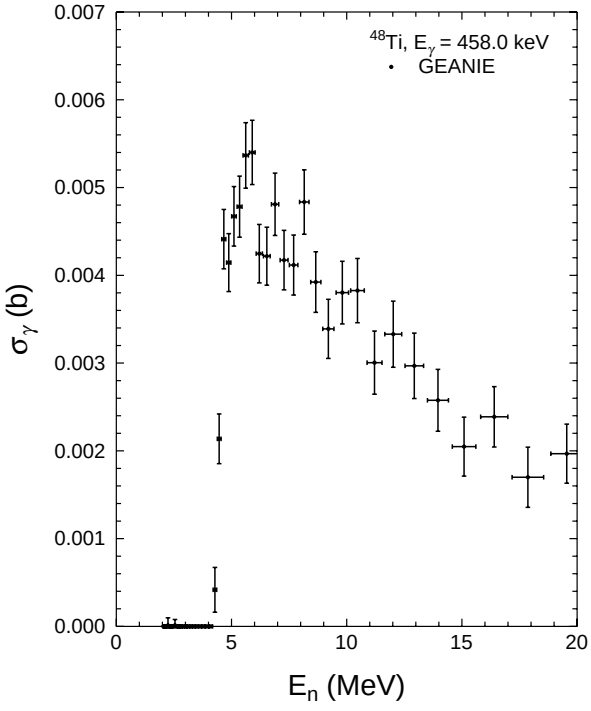

FIG. 31: Partial cross section for the $E_\gamma = 458.0$-keV transition in ^{48}Ti, extracted from coax data.

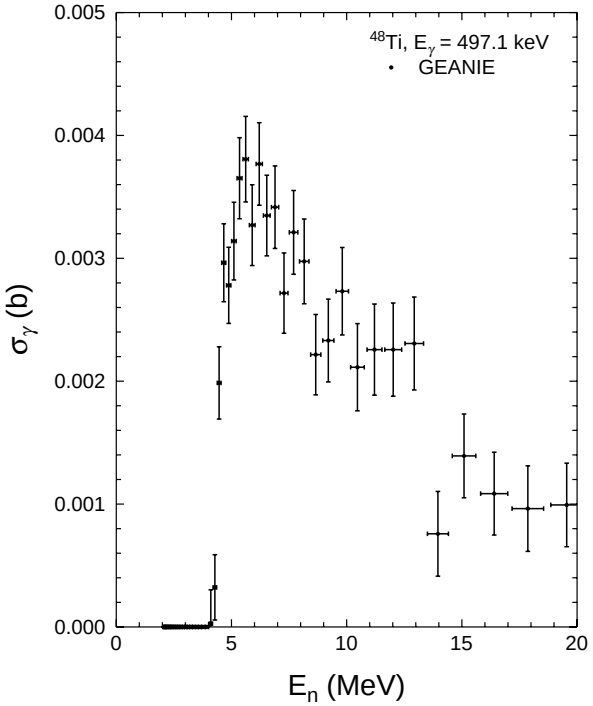

FIG. 32: Partial cross section for the $E_\gamma = 497.1$-keV transition in ^{48}Ti, extracted from coax data.

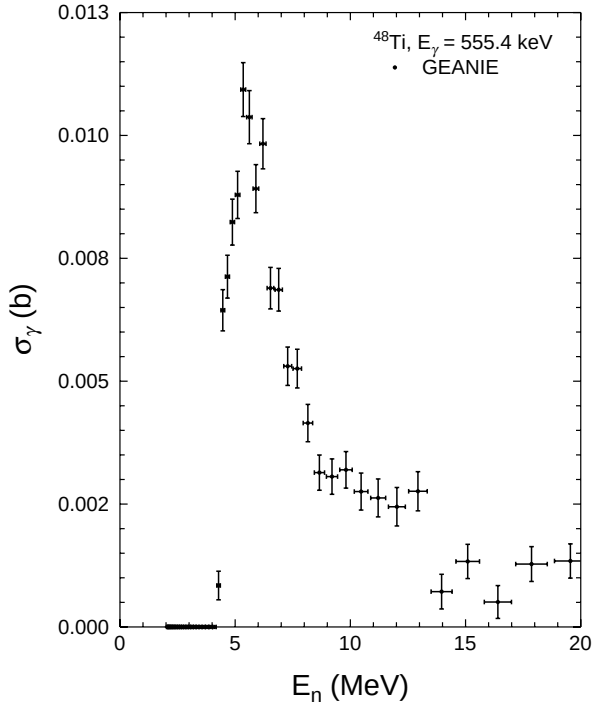

FIG. 33: Partial cross section for the $E_\gamma = 555.4$-keV transition in ^{48}Ti, extracted from coax data.

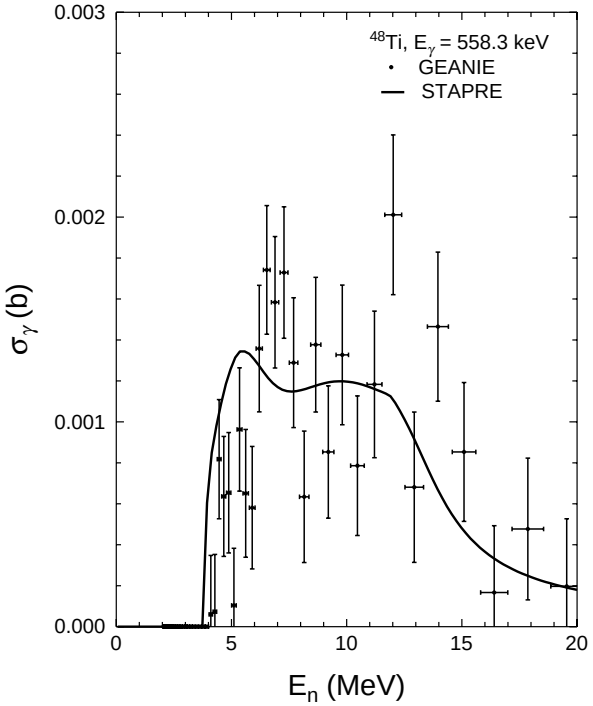

FIG. 34: Partial cross section for the $E_\gamma = 558.3$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

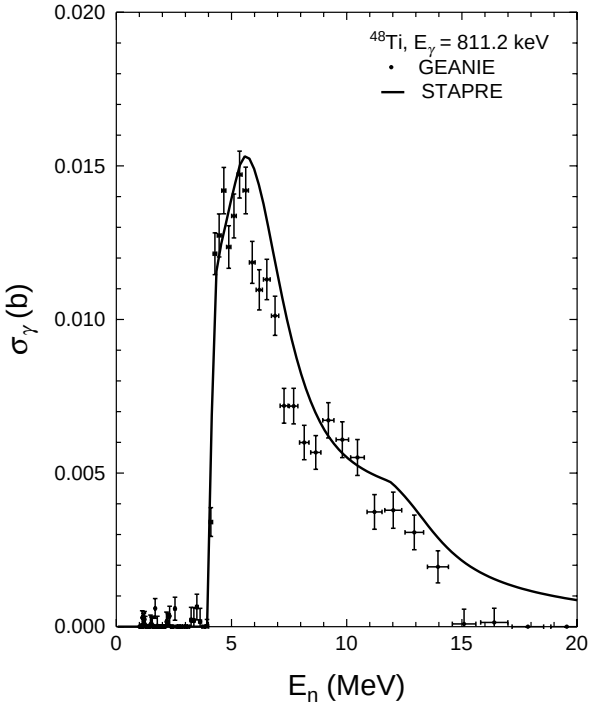

FIG. 35: Partial cross section for the $E_\gamma = 811.2$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

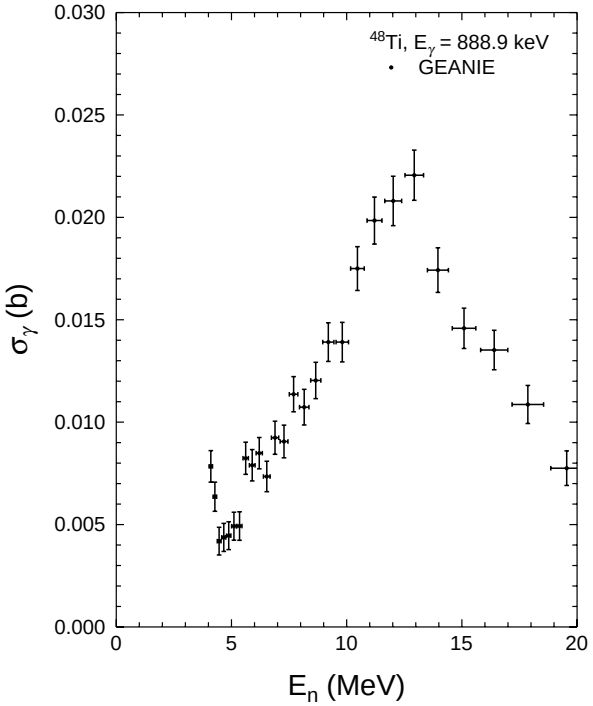

FIG. 36: Partial cross section for the E_γ = 888.9-keV transition in ^{48}Ti, extracted from coax data.

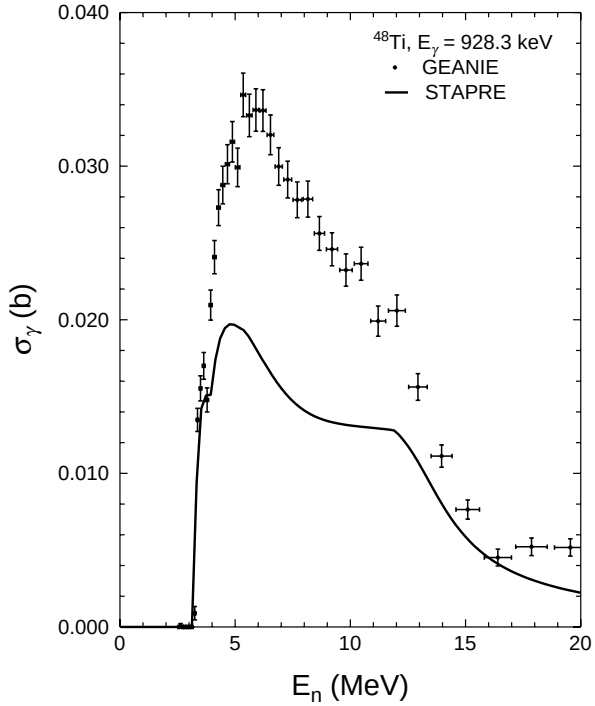

FIG. 37: Partial cross section for the E_γ = 928.3-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

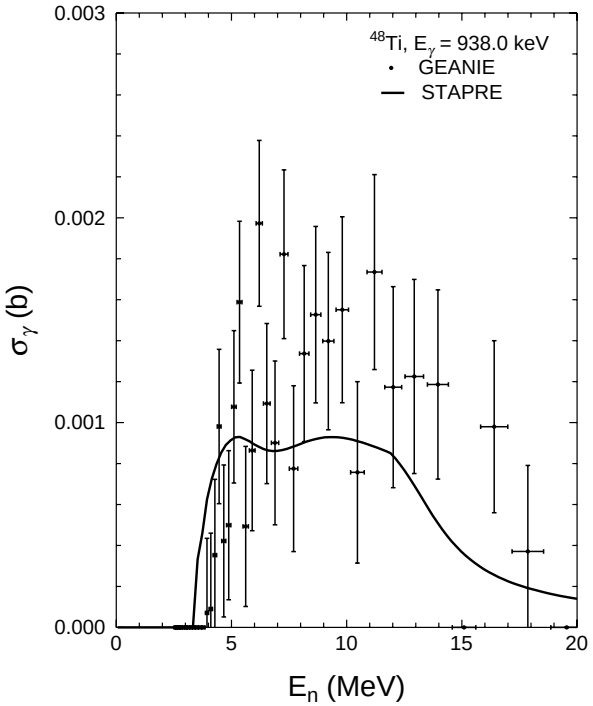

FIG. 38: Partial cross section for the E_γ = 938.0-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

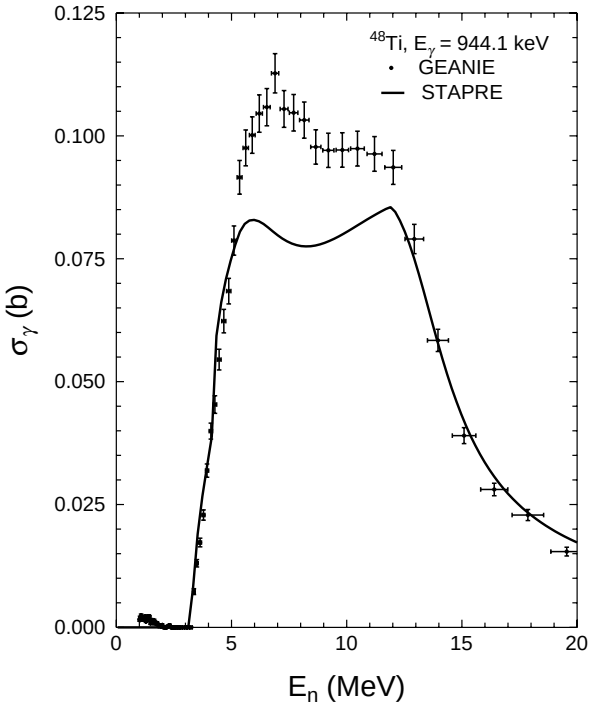

FIG. 39: Partial cross section for the E_γ = 944.1-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

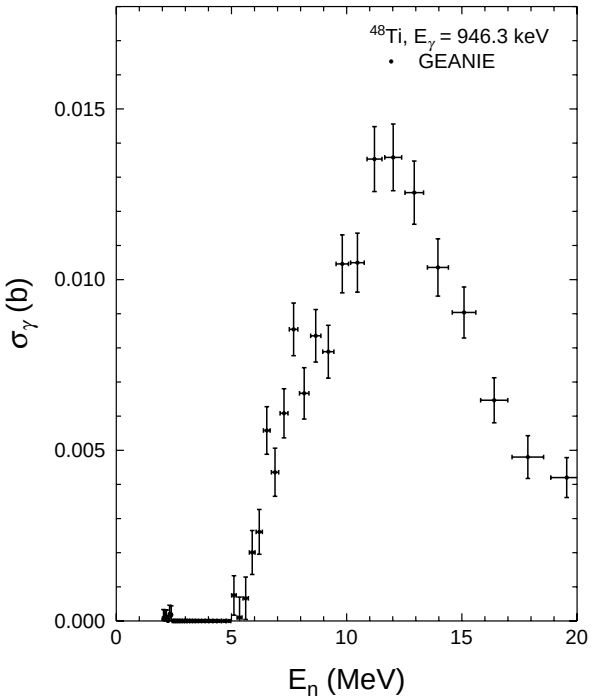

FIG. 40: Partial cross section for the $E_\gamma = 946.3$-keV transition in ^{48}Ti, extracted from coax data.

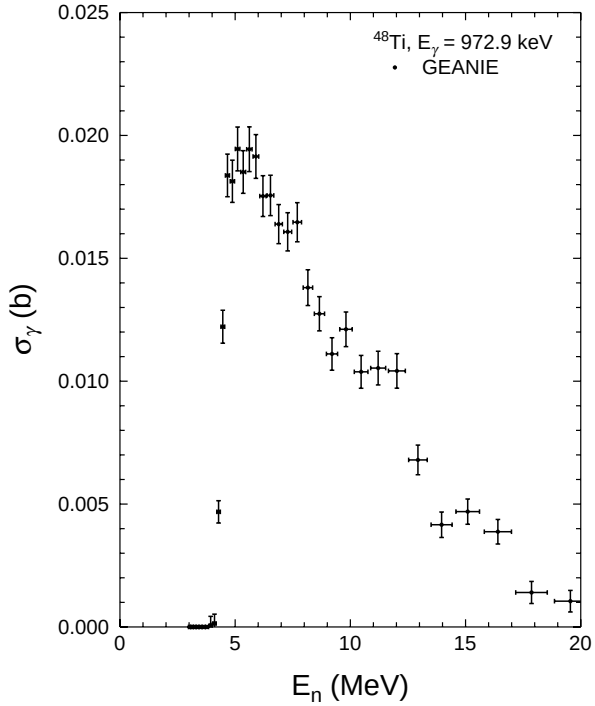

FIG. 41: Partial cross section for the $E_\gamma = 972.9$-keV transition in ^{48}Ti, extracted from coax data.

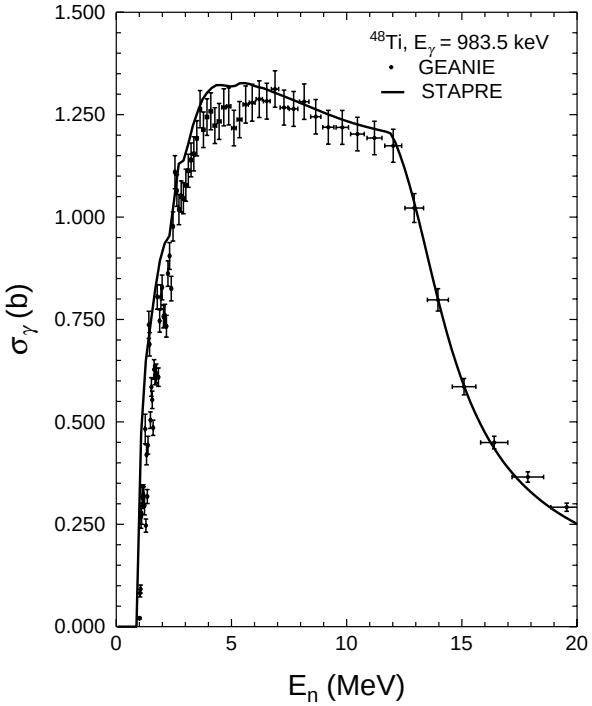

FIG. 42: Partial cross section for the $E_\gamma = 983.5$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

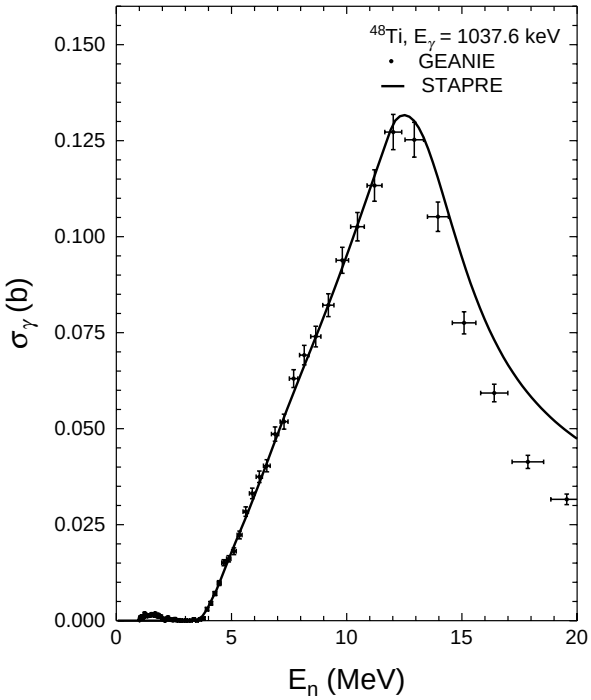

FIG. 43: Partial cross section for the $E_\gamma = 1037.6$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

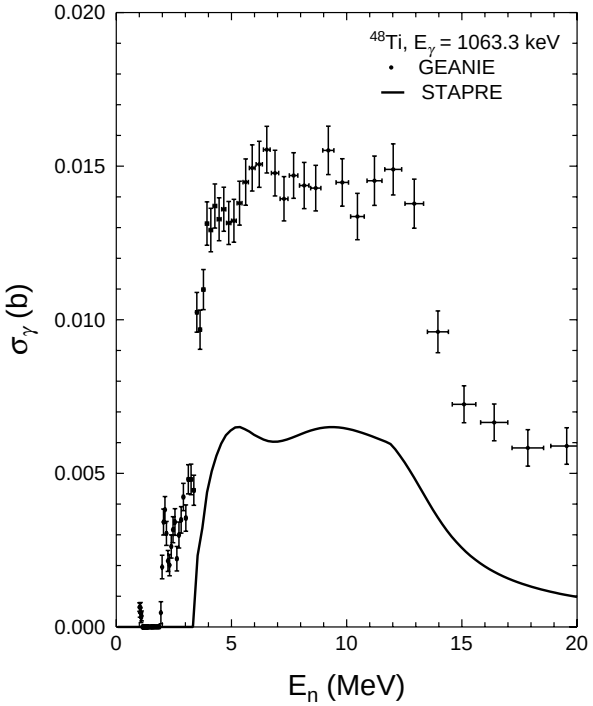

FIG. 44: Partial cross section for the $E_\gamma = 1063.3$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

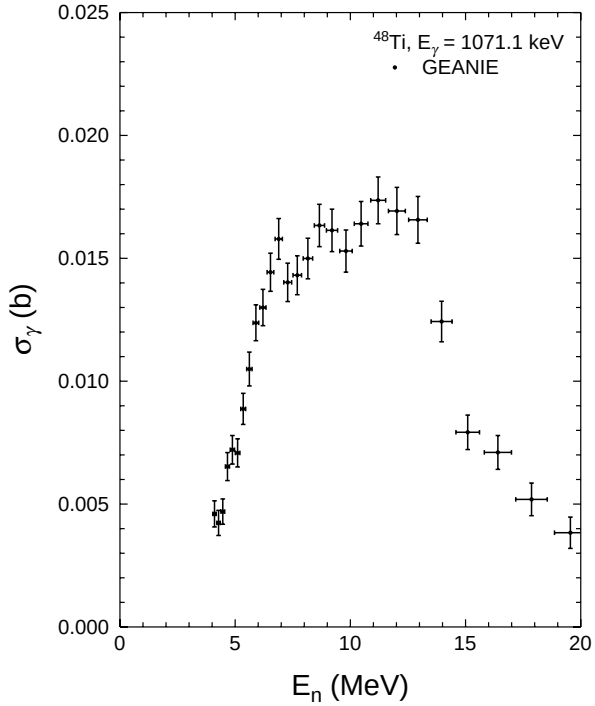

FIG. 45: Partial cross section for the $E_\gamma = 1071.1$-keV transition in ^{48}Ti, extracted from coax data.

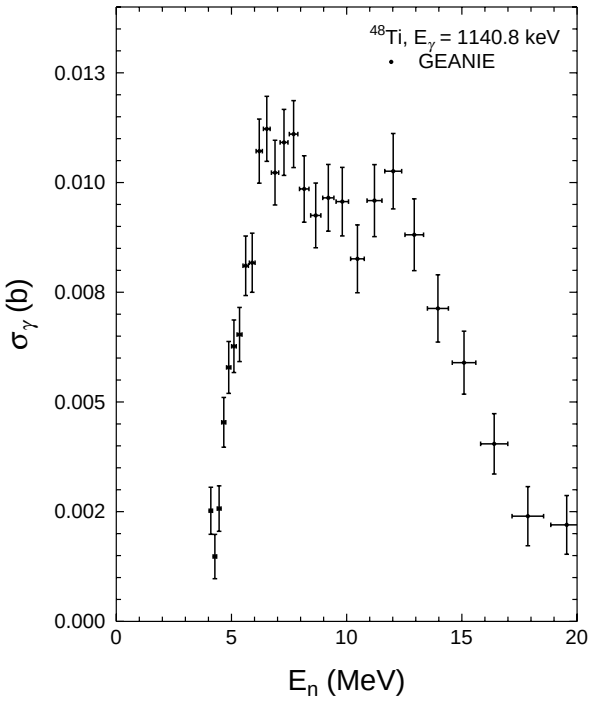

FIG. 46: Partial cross section for the $E_\gamma = 1140.8$-keV transition in ^{48}Ti, extracted from coax data.

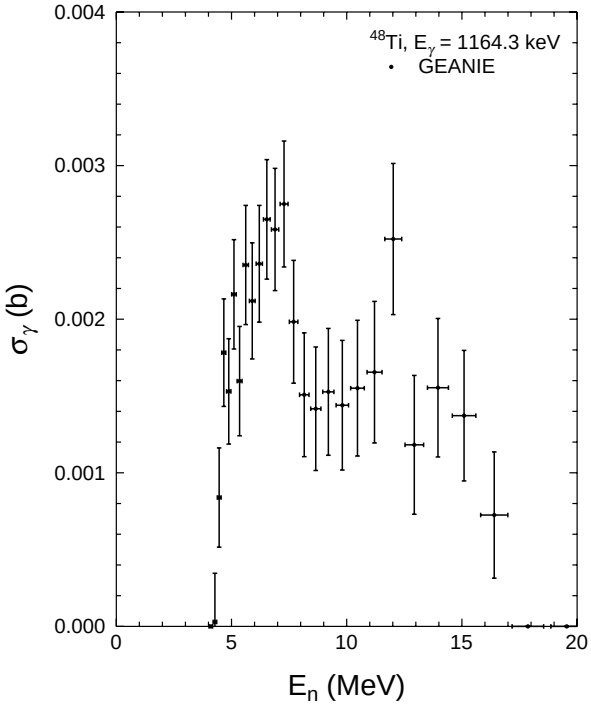

FIG. 47: Partial cross section for the $E_\gamma = 1164.3$-keV transition in ^{48}Ti, extracted from coax data.

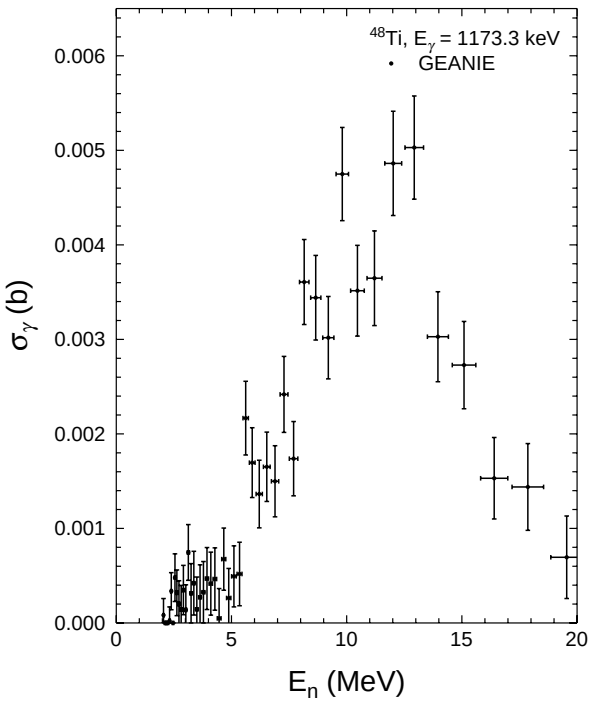

FIG. 48: Partial cross section for the $E_\gamma = 1173.3$-keV transition in ^{48}Ti, extracted from coax data.

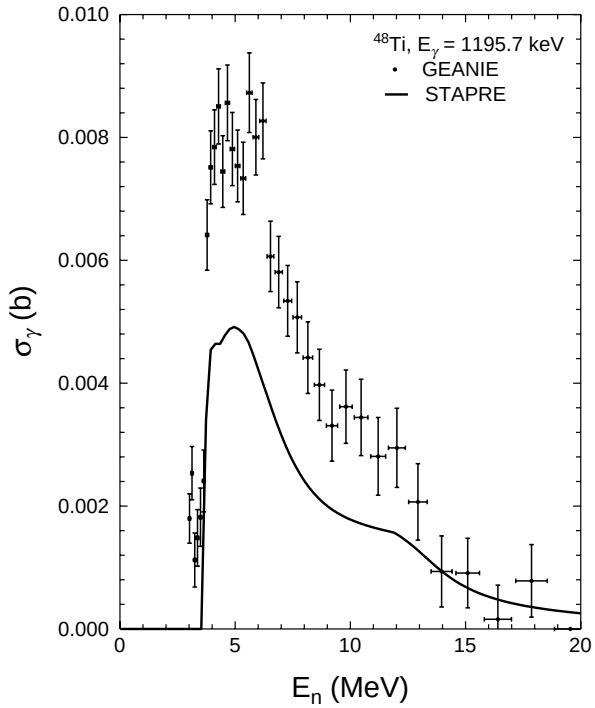

FIG. 49: Partial cross section for the $E_\gamma = 1195.7$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

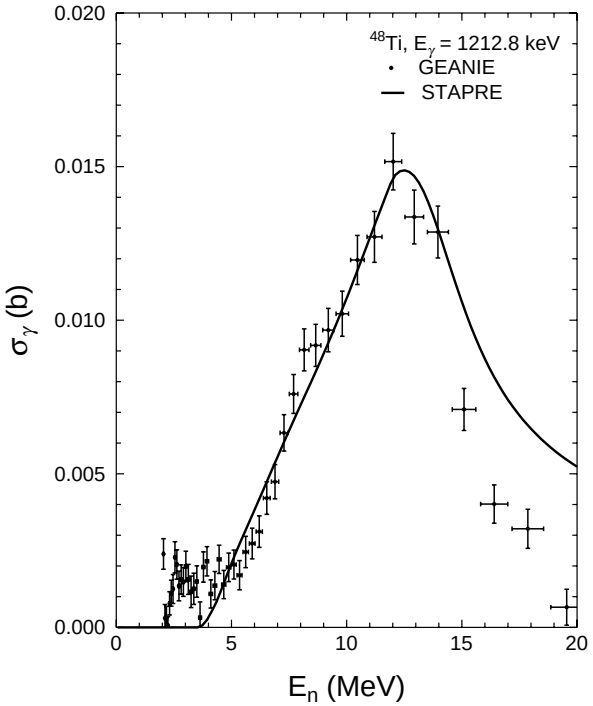

FIG. 50: Partial cross section for the $E_\gamma = 1212.8$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

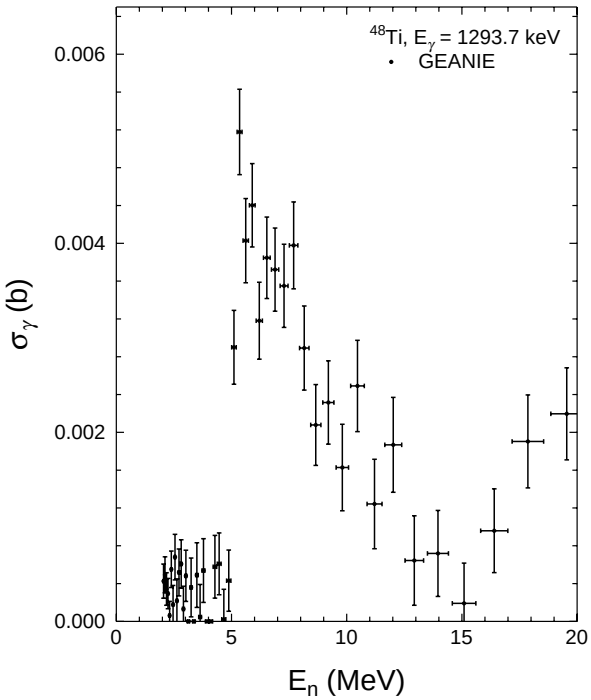

FIG. 51: Partial cross section for the $E_\gamma = 1293.7$-keV transition in ^{48}Ti, extracted from coax data.

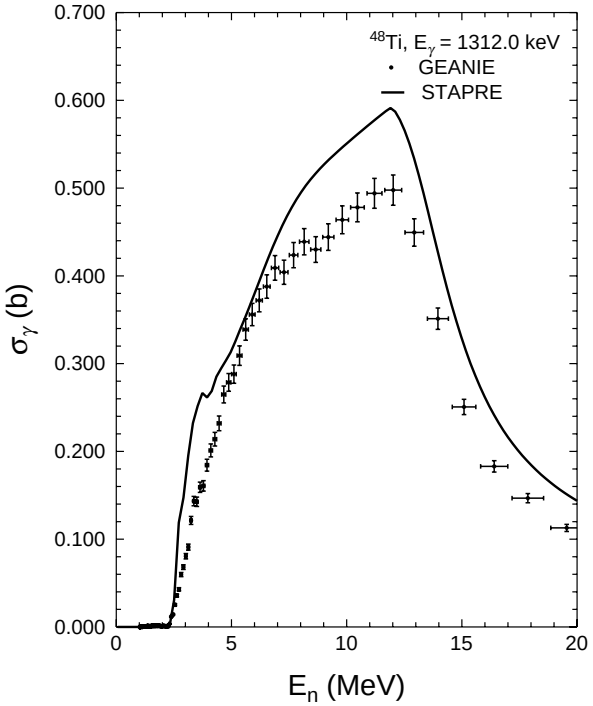

FIG. 52: Partial cross section for the $E_\gamma = 1312.0$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

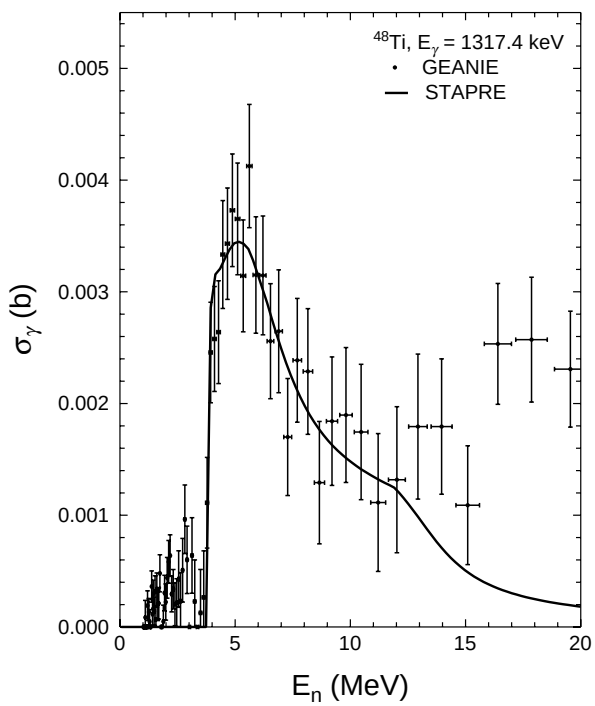

FIG. 53: Partial cross section for the $E_\gamma = 1317.4$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

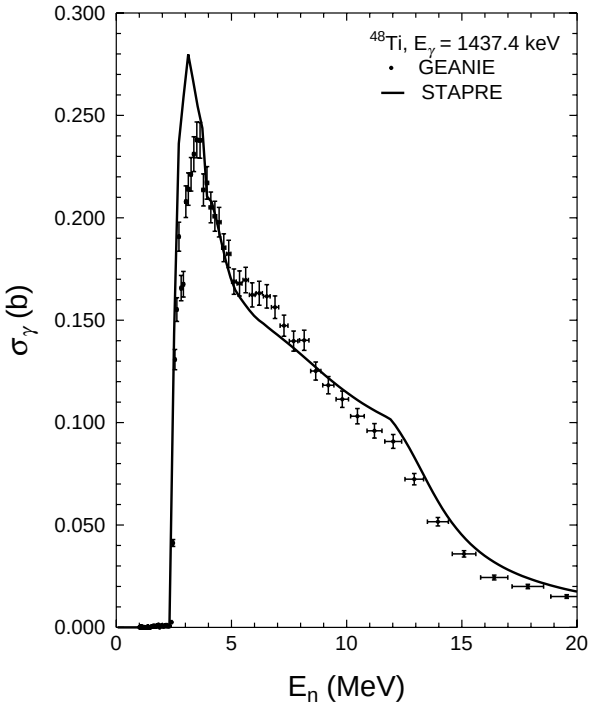

FIG. 54: Partial cross section for the $E_\gamma = 1437.4$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

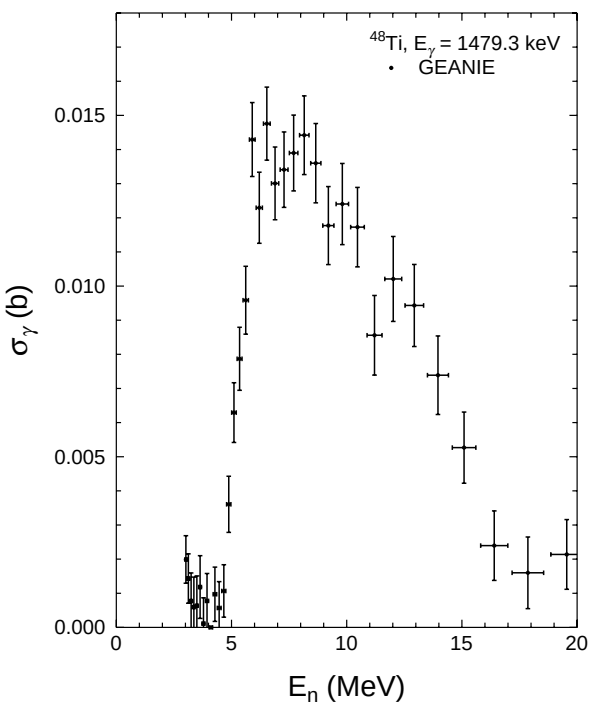

FIG. 55: Partial cross section for the $E_\gamma = 1479.3$-keV transition in ^{48}Ti, extracted from coax data.

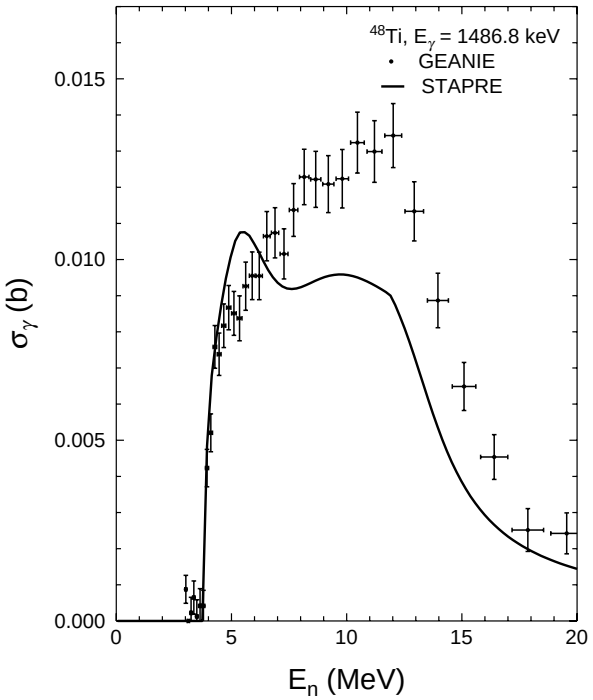

FIG. 56: Partial cross section for the $E_\gamma = 1486.6$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

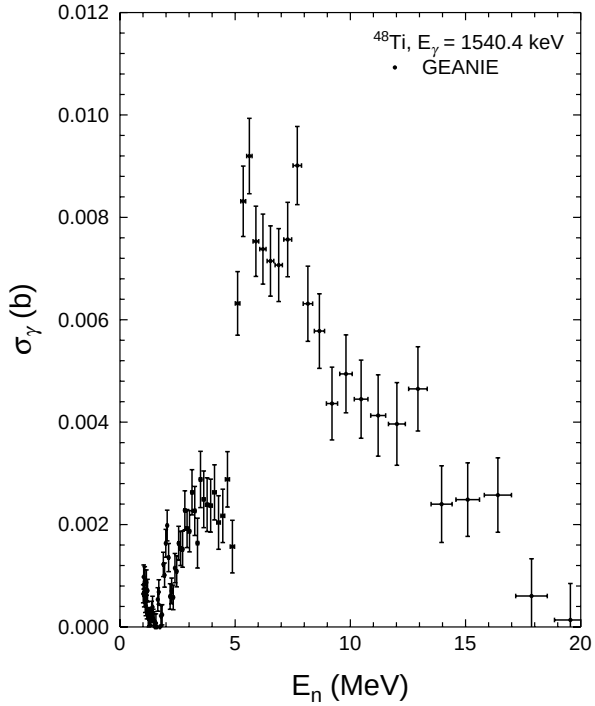

FIG. 57: Partial cross section for the $E_\gamma = 1540.4$-keV transition in ^{48}Ti, extracted from coax data.

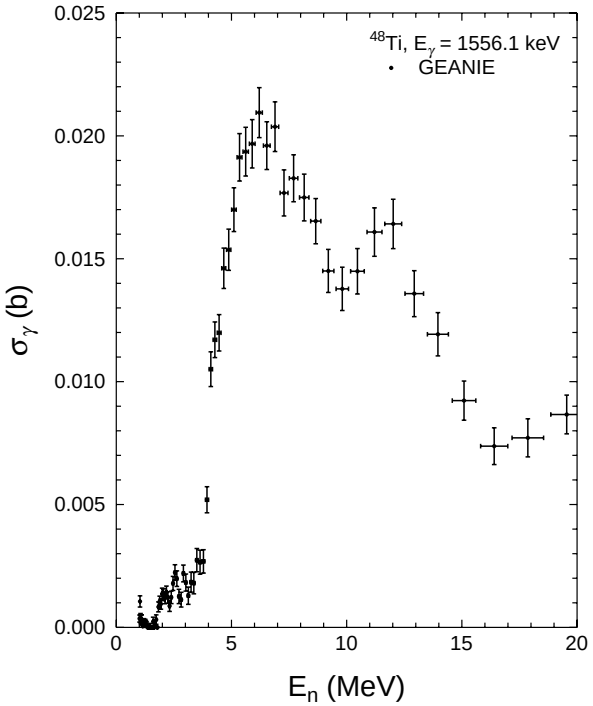

FIG. 58: Partial cross section for the $E_\gamma = 1556.1$-keV transition in ^{48}Ti, extracted from coax data.

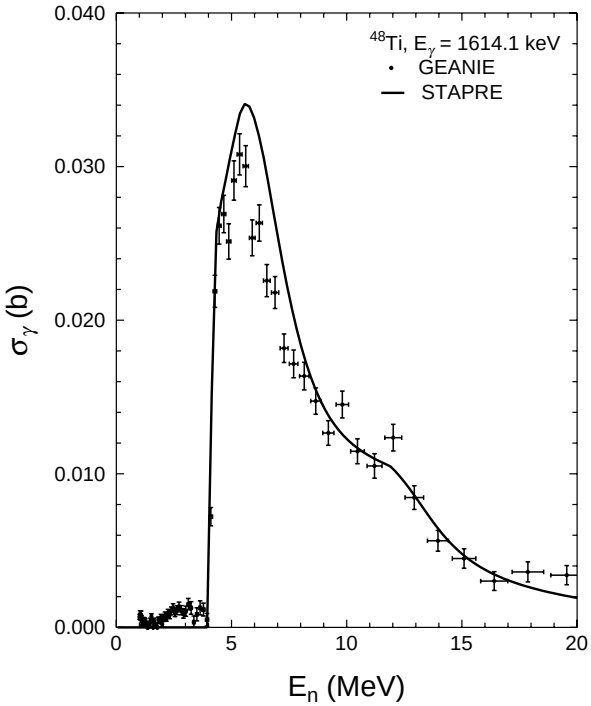

FIG. 59: Partial cross section for the $E_\gamma = 1614.1$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

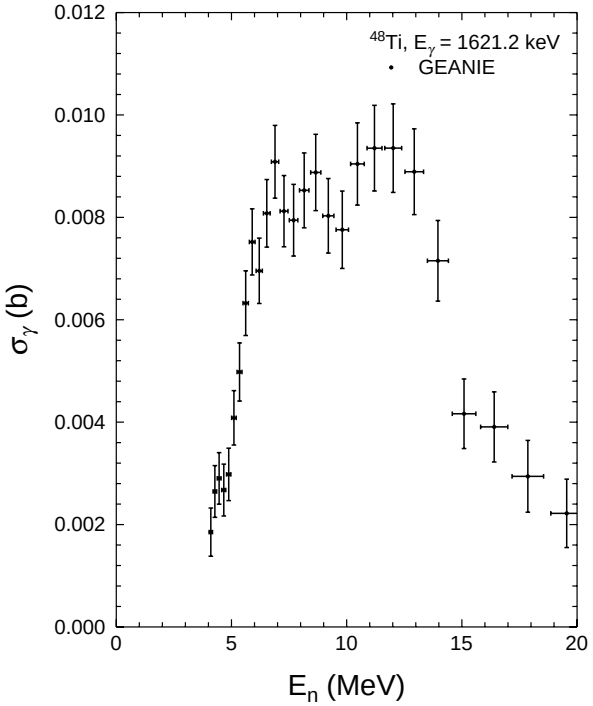

FIG. 60: Partial cross section for the $E_\gamma = 1621.2$-keV transition in ^{48}Ti, extracted from coax data.

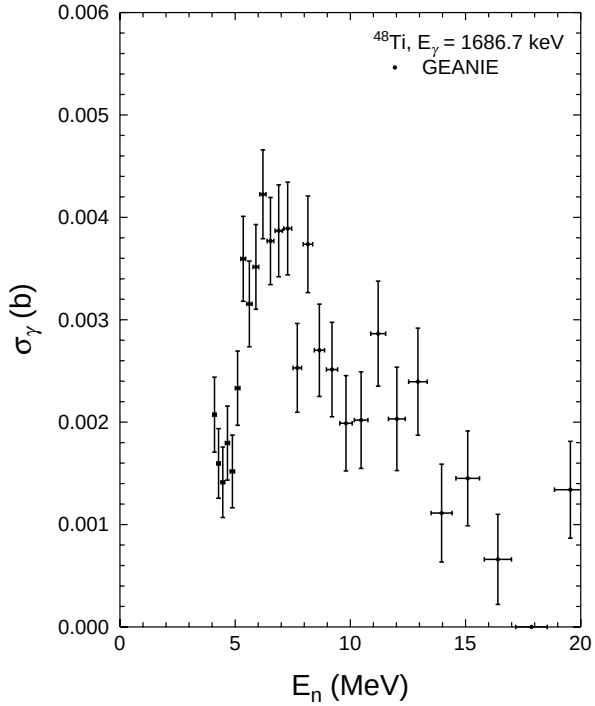

FIG. 61: Partial cross section for the $E_\gamma = 1686.7$-keV transition in ^{48}Ti, extracted from coax data.

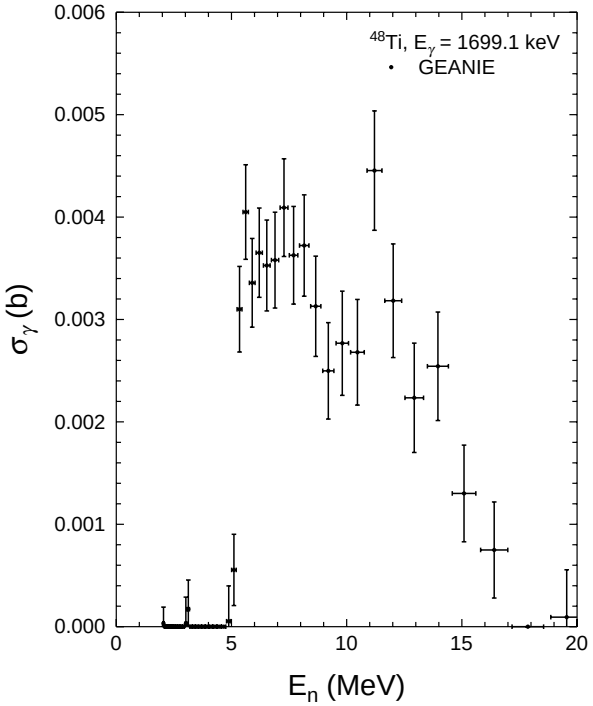

FIG. 62: Partial cross section for the $E_\gamma = 1699.1$-keV transition in ^{48}Ti, extracted from coax data.

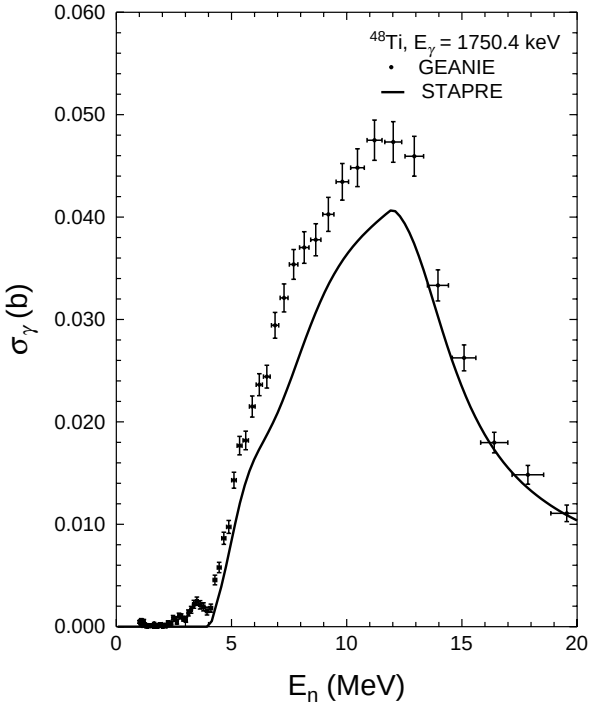

FIG. 63: Partial cross section for the $E_\gamma = 1750.4$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

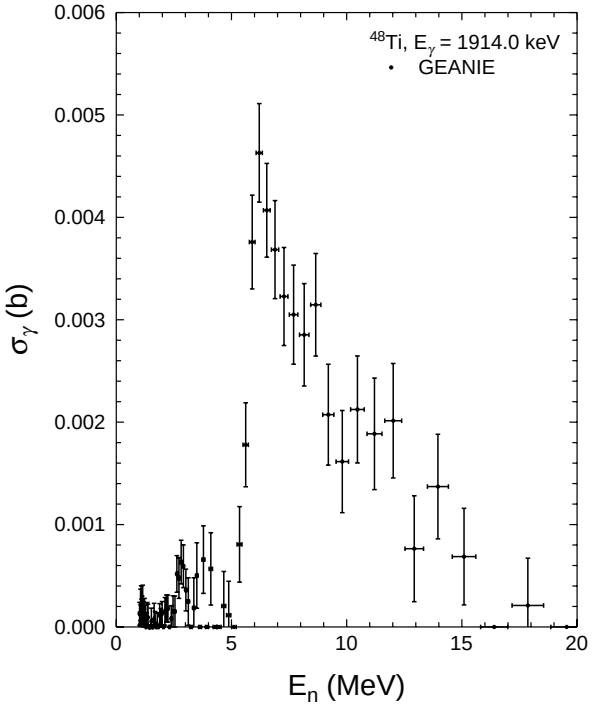

FIG. 64: Partial cross section for the $E_\gamma = 1914.0$-keV transition in ^{48}Ti, extracted from coax data.

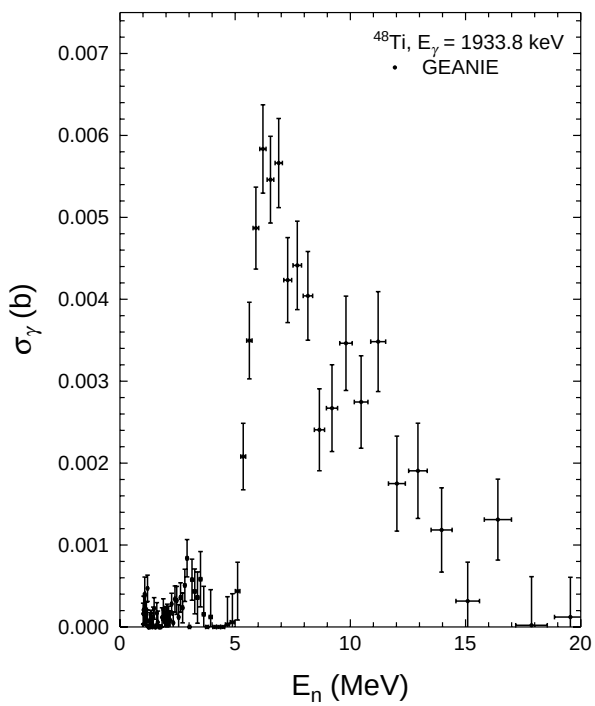

FIG. 65: Partial cross section for the $E_\gamma = 1933.8$-keV transition in ^{48}Ti, extracted from coax data.

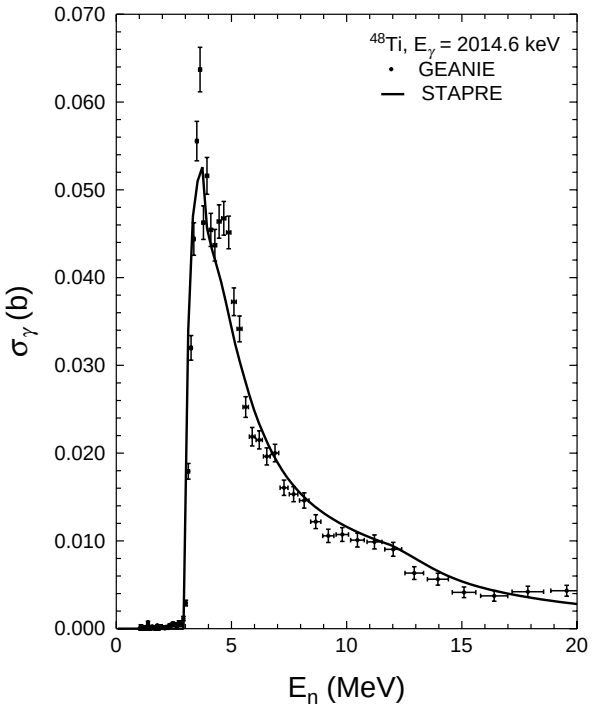

FIG. 66: Partial cross section for the $E_\gamma = 2014.6$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

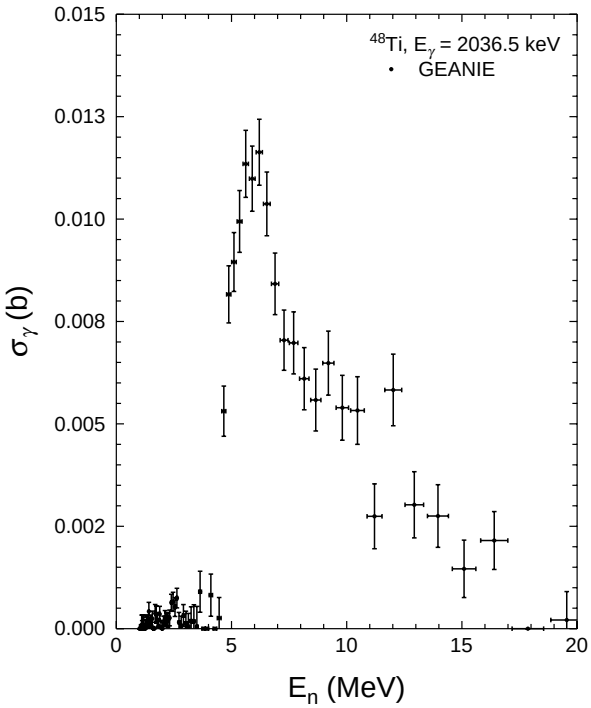

FIG. 67: Partial cross section for the $E_\gamma = 2036.5$-keV transition in ^{48}Ti, extracted from coax data.

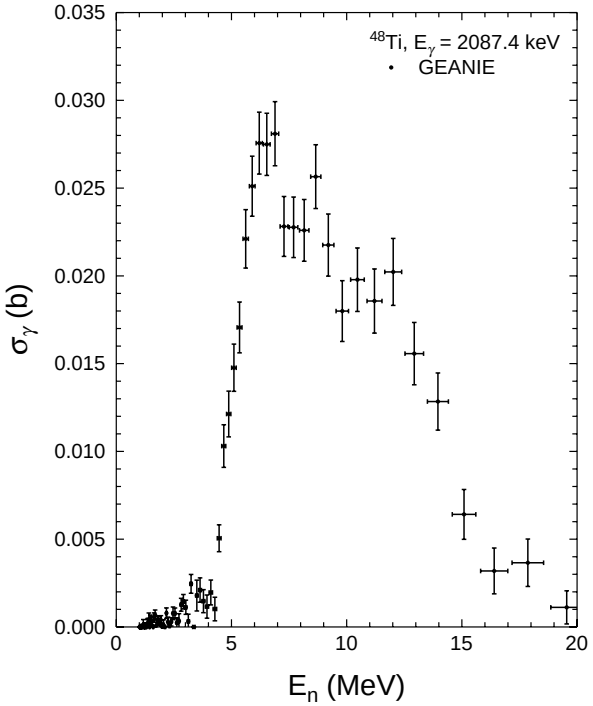

FIG. 68: Partial cross section for the $E_\gamma = 2087.4$-keV transition in ^{48}Ti, extracted from coax data.

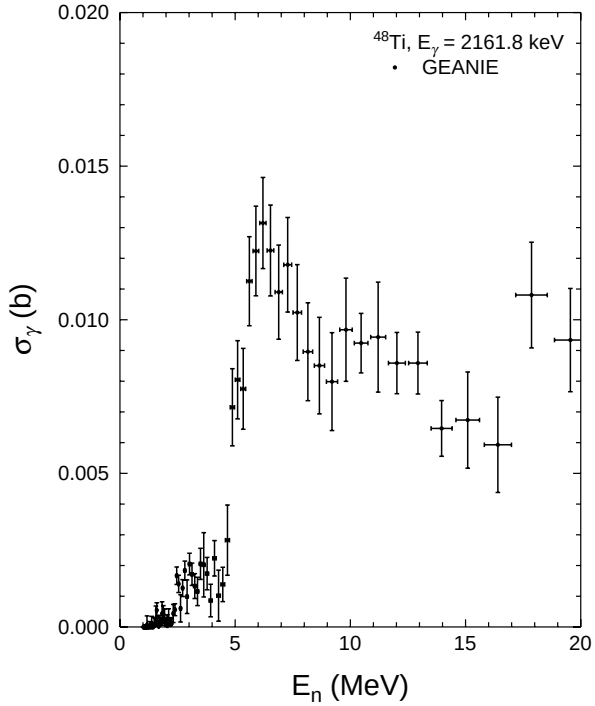

FIG. 69: Partial cross section for the $E_\gamma = 2161.8$-keV transition in ^{48}Ti, extracted from coax data.

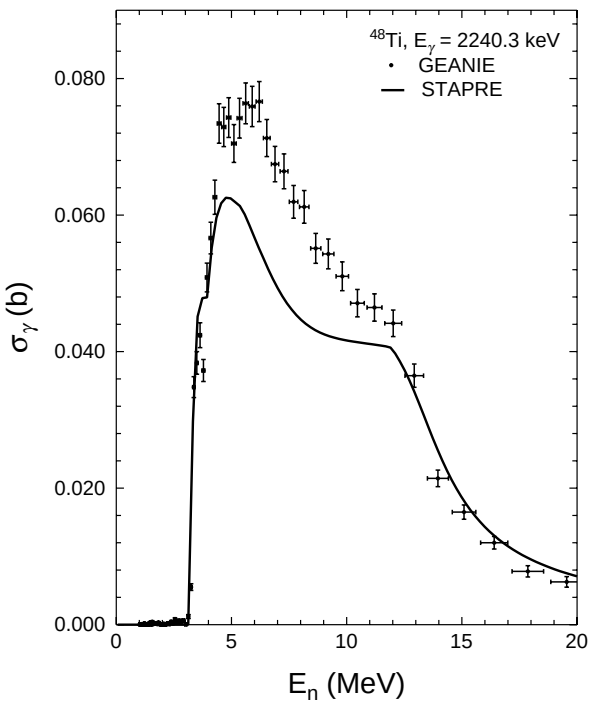

FIG. 70: Partial cross section for the $E_\gamma = 2240.3$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

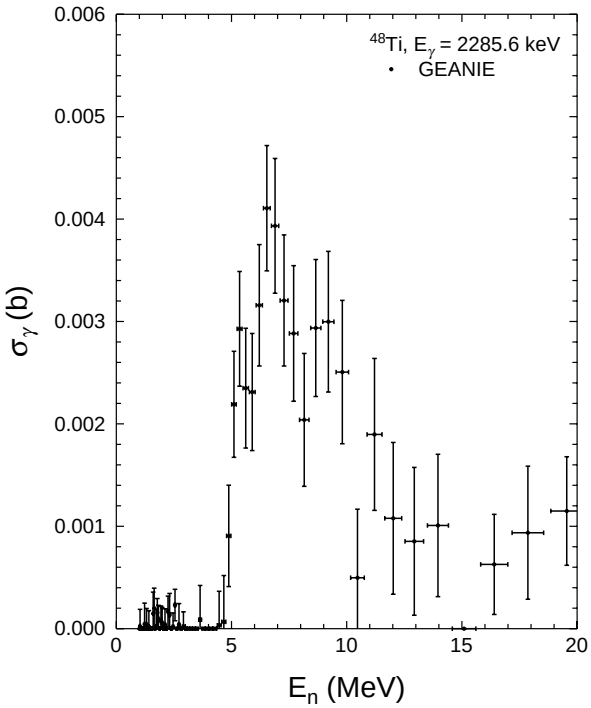

FIG. 71: Partial cross section for the $E_\gamma = 2285.6$-keV transition in ^{48}Ti, extracted from coax data.

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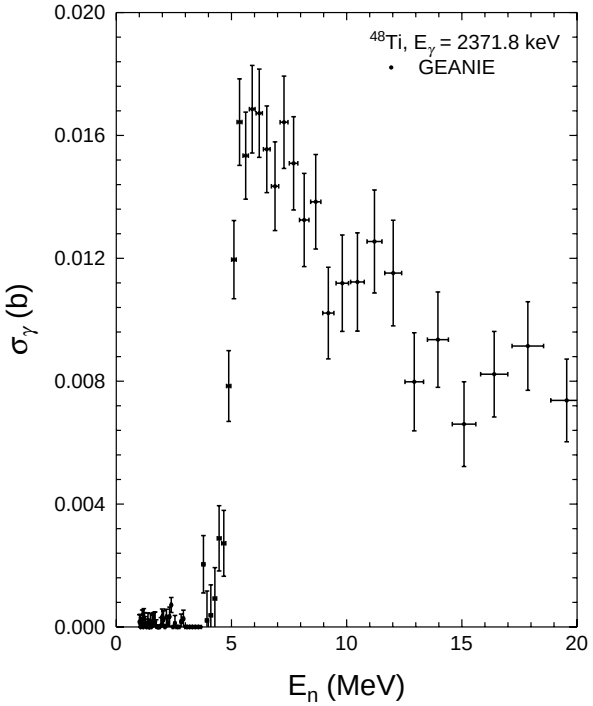

FIG. 72: Partial cross section for the $E_\gamma = 2371.8$-keV transition in ^{48}Ti, extracted from coax data.

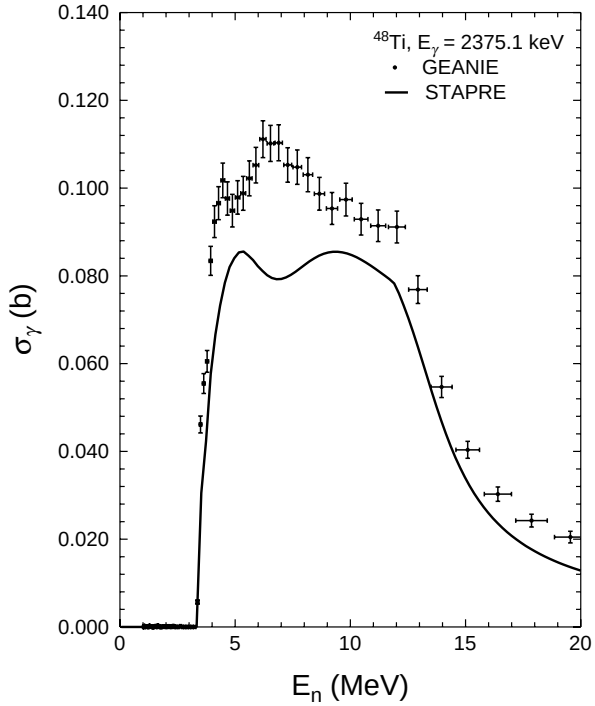

FIG. 73: Partial cross section for the $E_\gamma = 2375.1$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

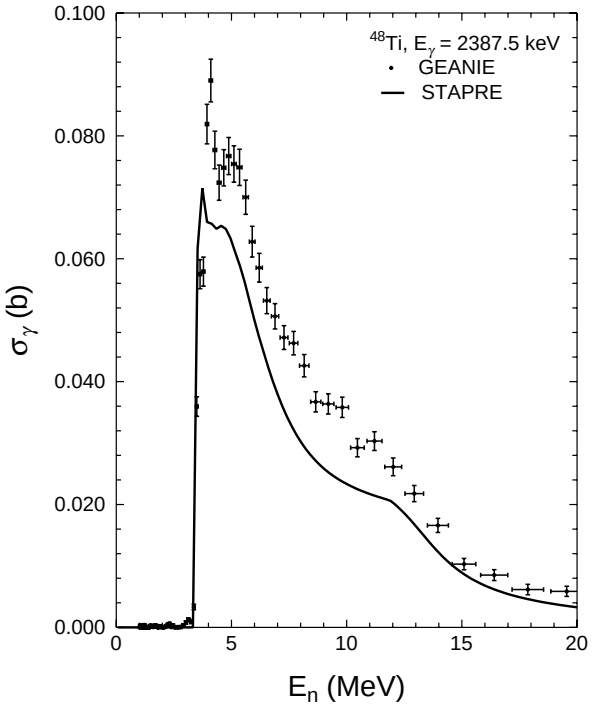

FIG. 74: Partial cross section for the $E_\gamma = 2387.5$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

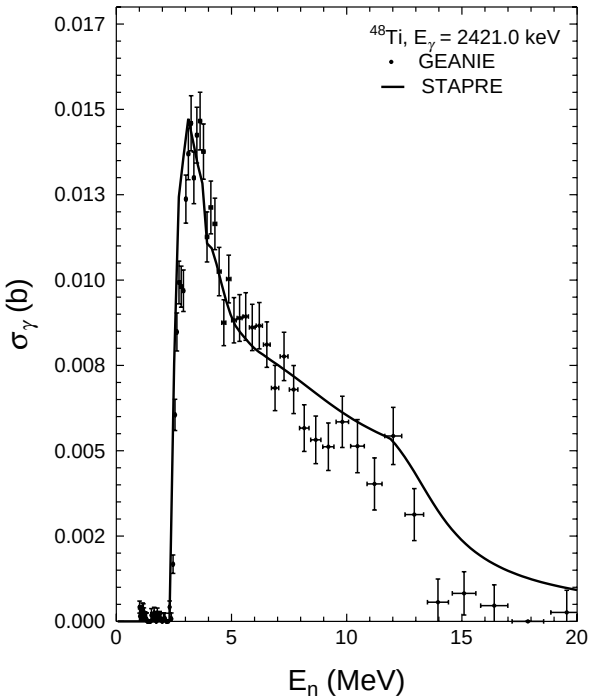

FIG. 75: Partial cross section for the $E_\gamma = 2421.0$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

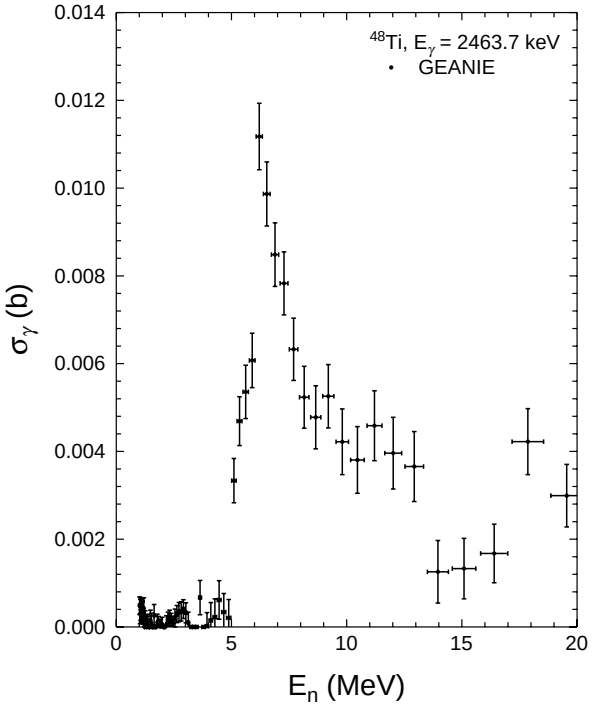

FIG. 76: Partial cross section for the $E_\gamma = 2463.6$-keV transition in ^{48}Ti, extracted from coax data.

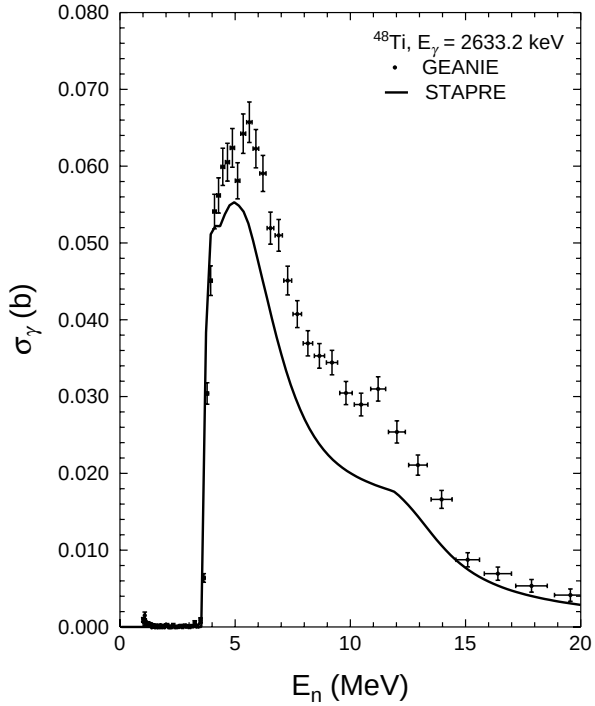

FIG. 77: Partial cross section for the $E_\gamma = 2633.2$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

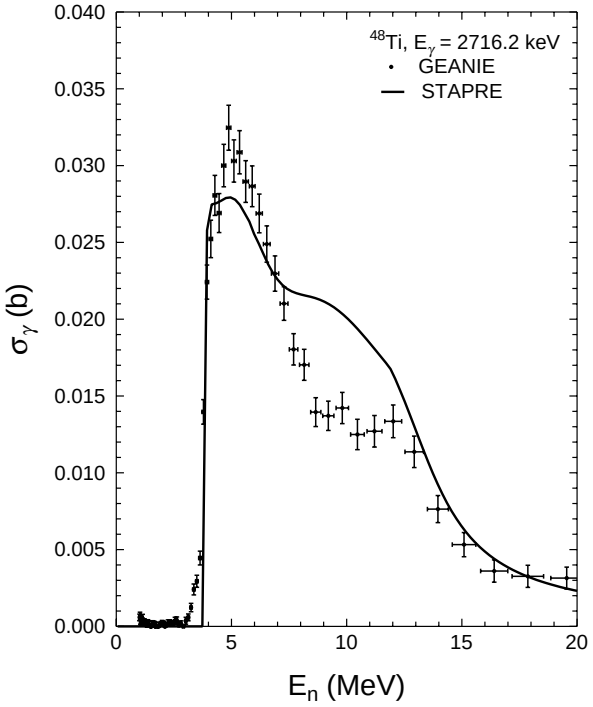

FIG. 78: Partial cross section for the $E_\gamma = 2716.2$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

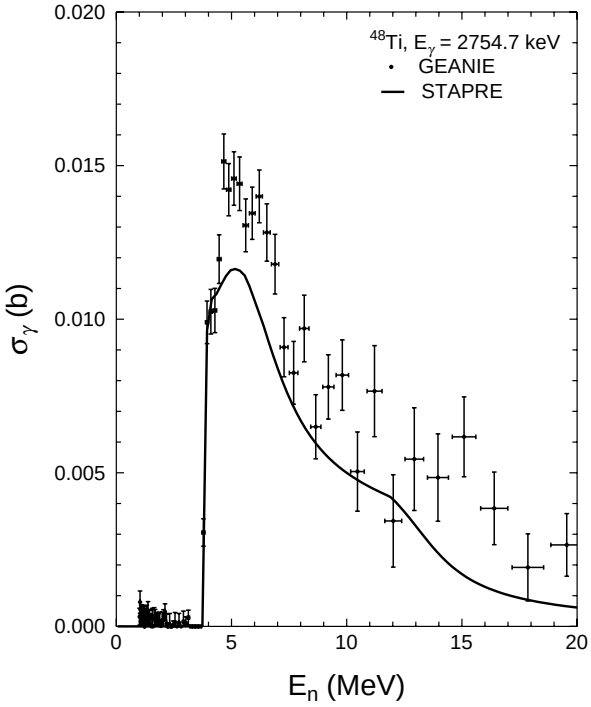

FIG. 79: Partial cross section for the $E_\gamma = 2754.7$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

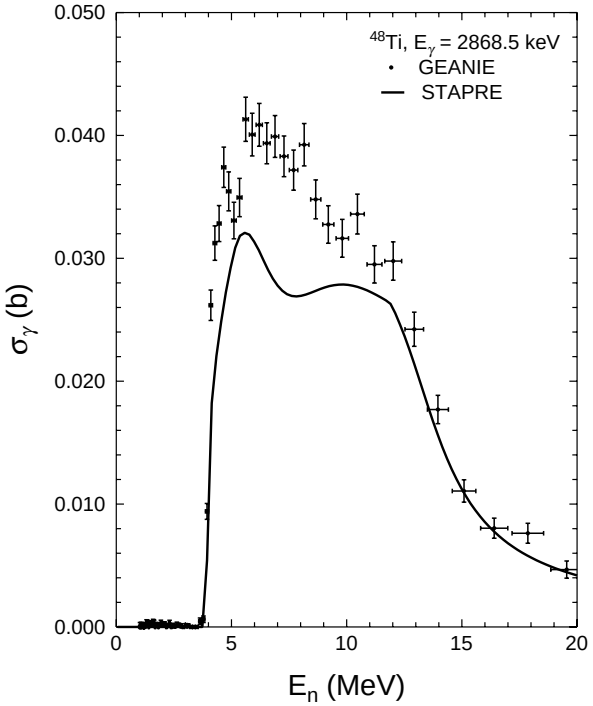

FIG. 80: Partial cross section for the $E_\gamma = 2868.5$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

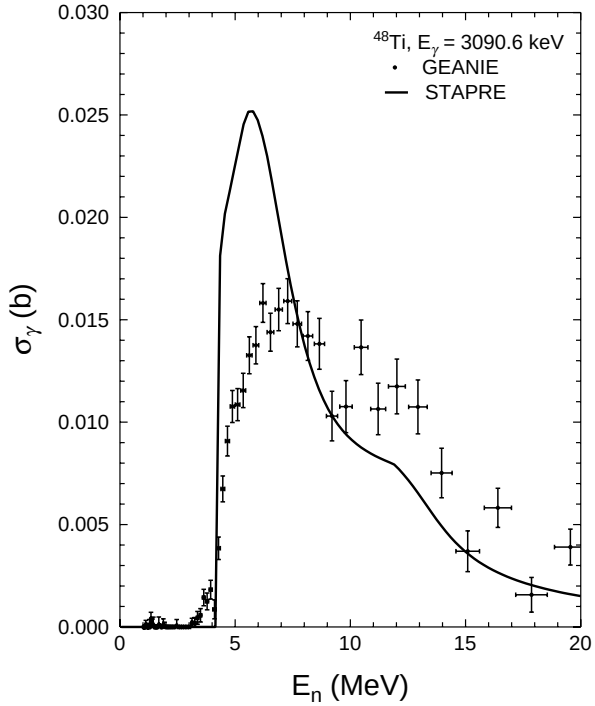

FIG. 81: Partial cross section for the $E_\gamma = 3090.6$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

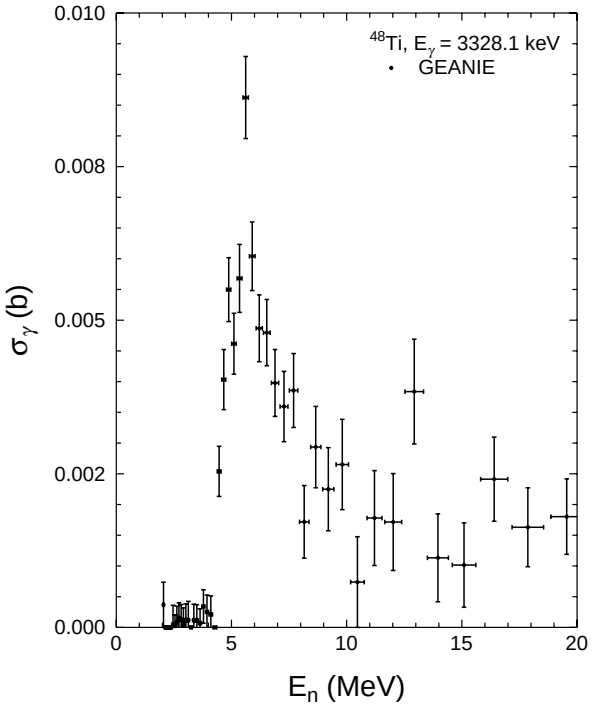

FIG. 82: Partial cross section for the $E_\gamma = 3328.1$-keV transition in ^{48}Ti, extracted from coax data.

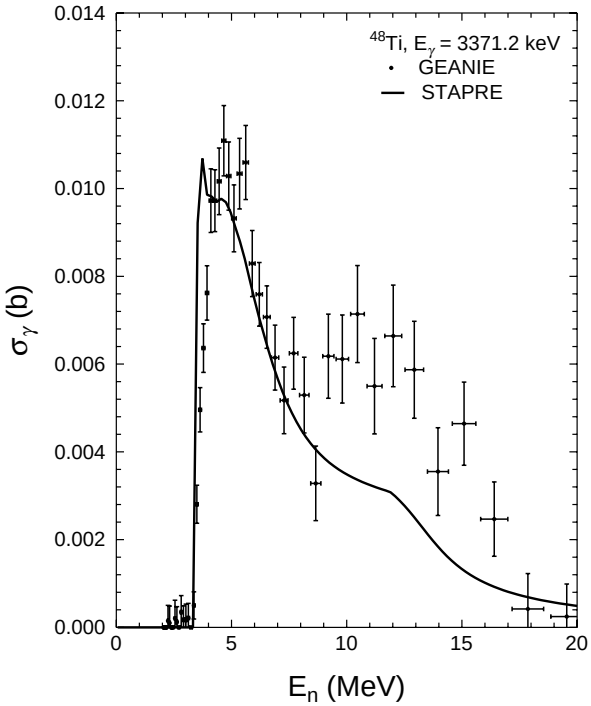

FIG. 83: Partial cross section for the $E_\gamma = 3371.2$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

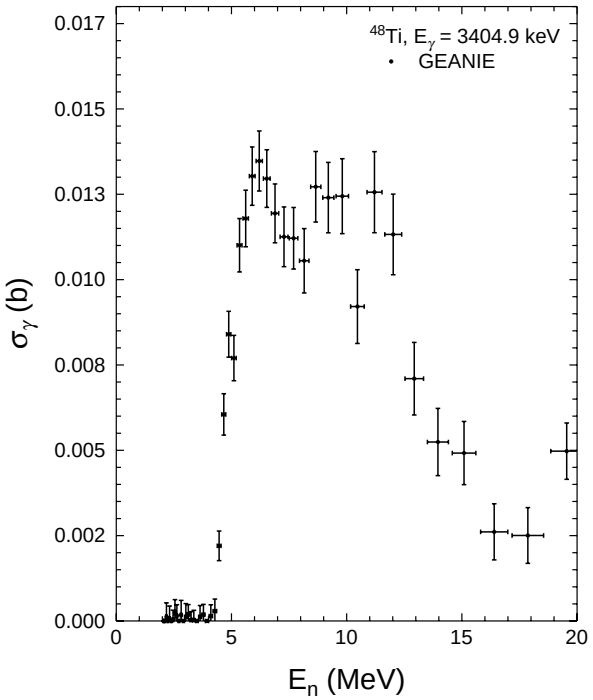

FIG. 84: Partial cross section for the $E_\gamma = 3404.9$-keV transition in ^{48}Ti, extracted from coax data.

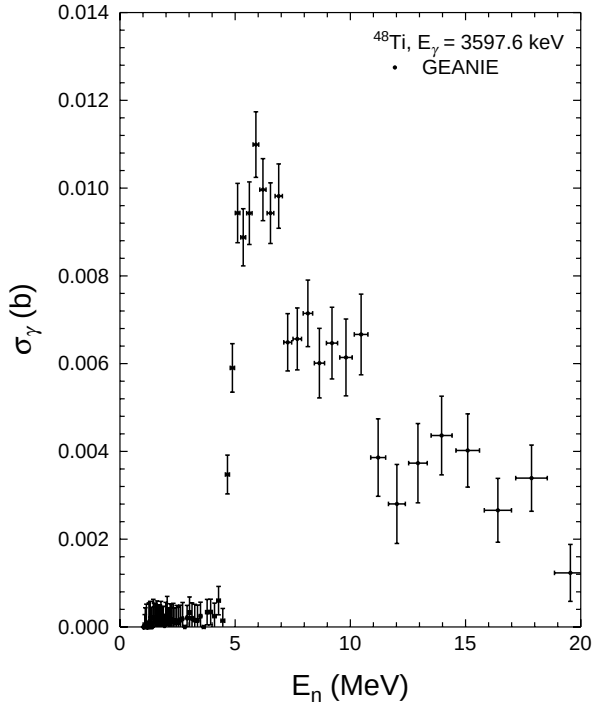

FIG. 85: Partial cross section for the $E_\gamma = 3597.6$-keV transition in ^{48}Ti, extracted from coax data.

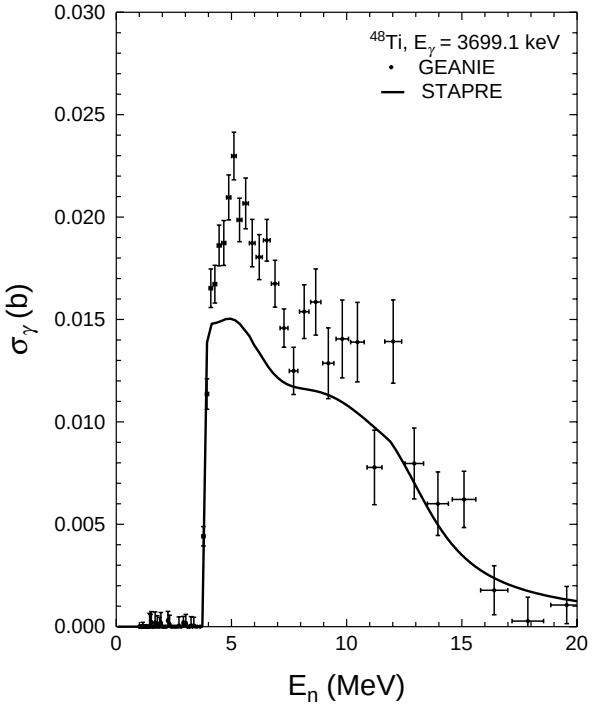

FIG. 86: Partial cross section for the $E_\gamma = 3699.1$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

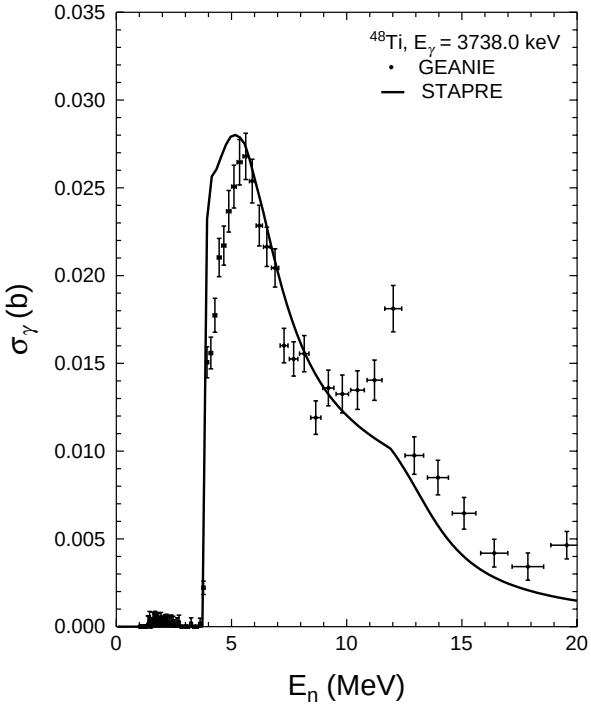

FIG. 87: Partial cross section for the $E_\gamma = 3738.0$-keV transition in ^{48}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

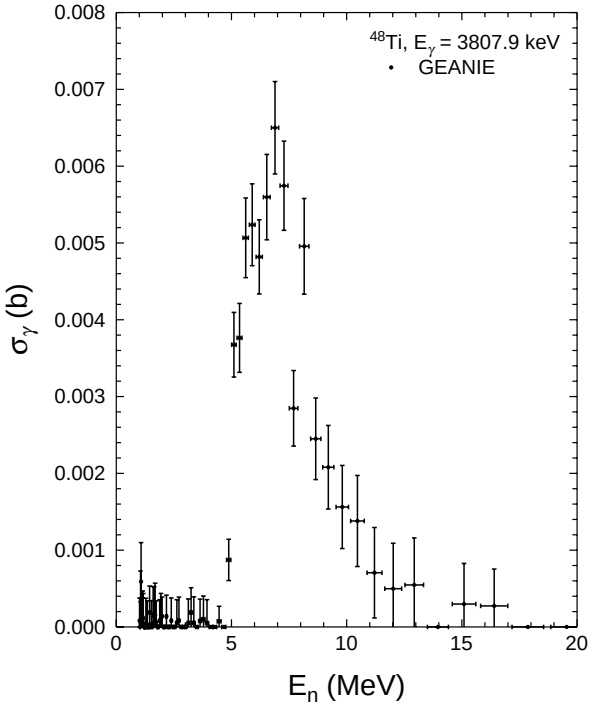

FIG. 88: Partial cross section for the $E_\gamma = 3807.9$-keV transition in ^{48}Ti, extracted from coax data.

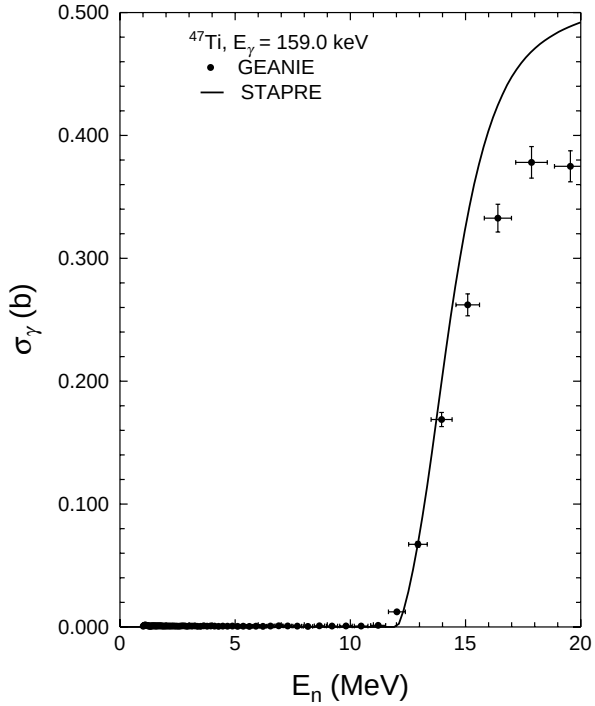

FIG. 89: Partial cross section for the $E_\gamma = 159.4$-keV transition in ^{47}Ti, extracted from planar data. The data are compared to a STAPRE prediction.

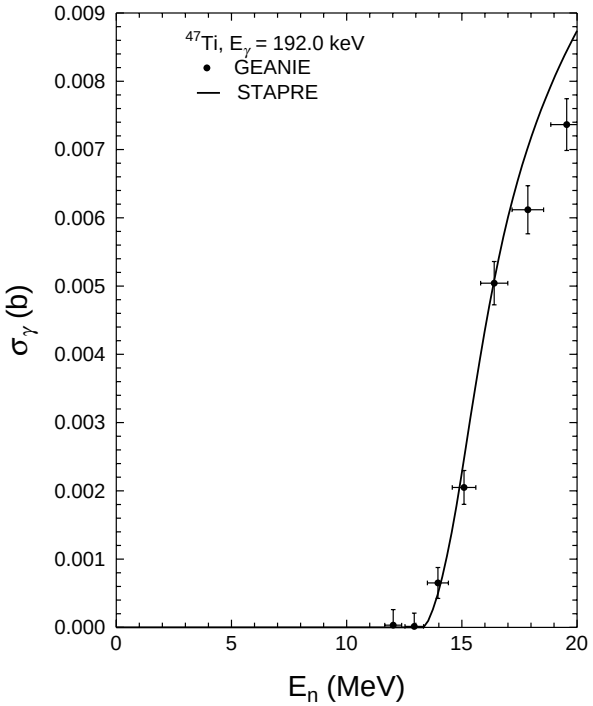

FIG. 90: Partial cross section for the $E_\gamma = 192.0$-keV transition in ^{47}Ti, extracted from planar data. The data are compared to a STAPRE prediction.

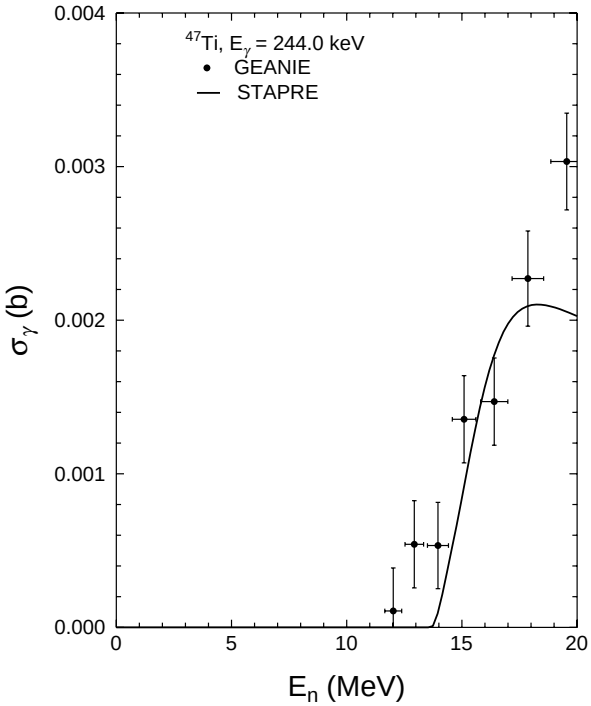

FIG. 91: Partial cross section for the $E_\gamma = 244.3$-keV transition in ^{47}Ti, extracted from planar data. The data are compared to a STAPRE prediction.

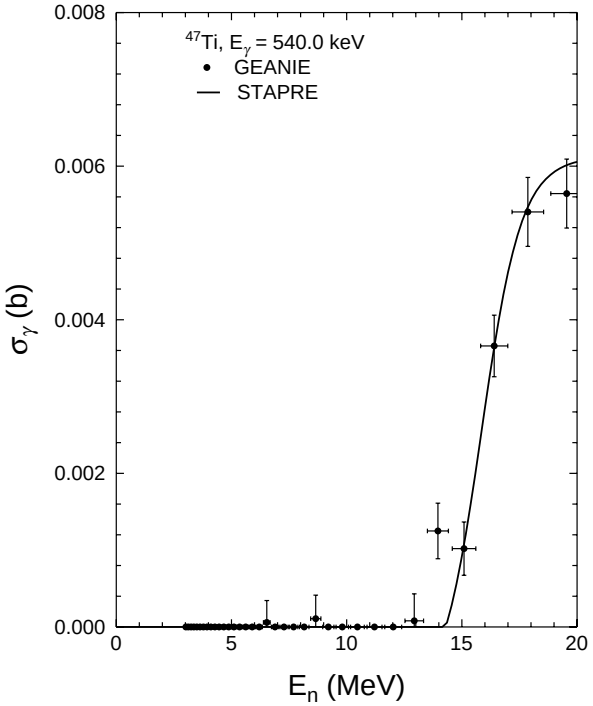

FIG. 92: Partial cross section for the $E_\gamma = 539.6$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

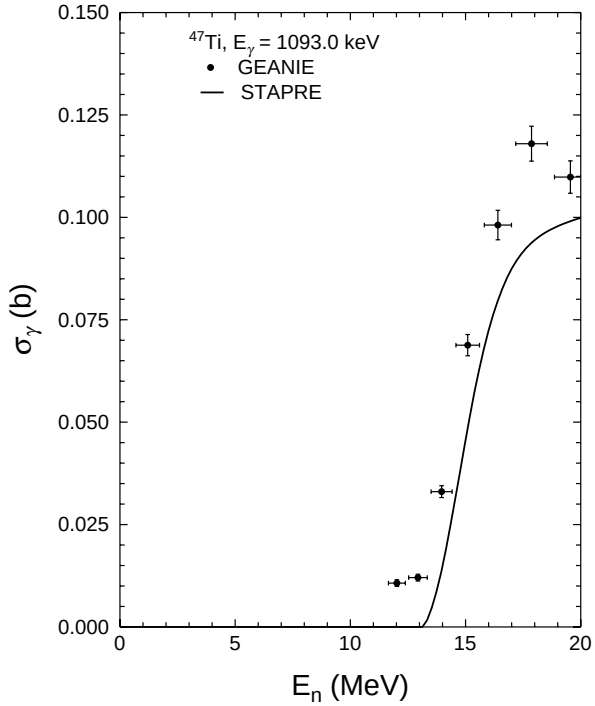

FIG. 93: Partial cross section for the $E_\gamma = 1093.4$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

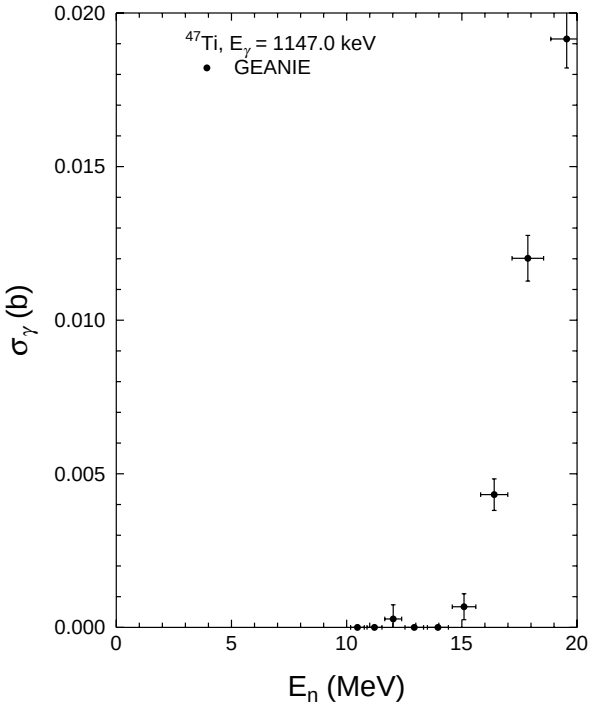

FIG. 94: Partial cross section for the $E_\gamma = 1147.0$-keV transition in ^{47}Ti, extracted from coax data.

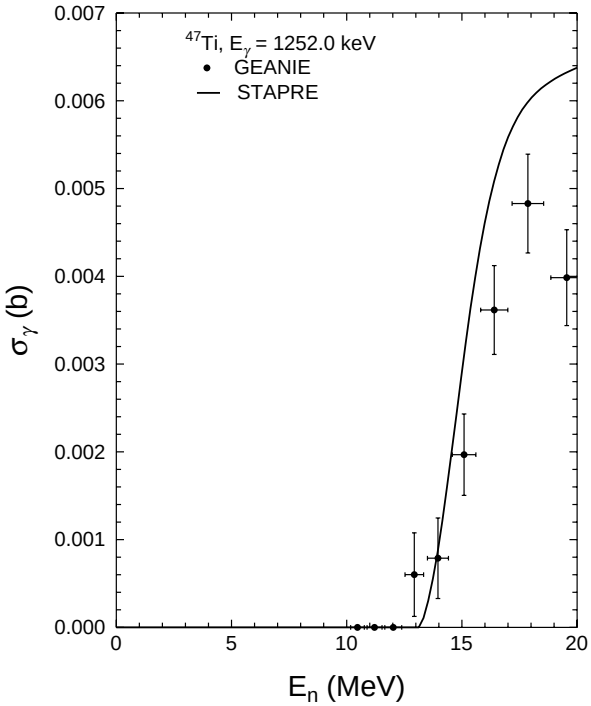

FIG. 95: Partial cross section for the $E_\gamma = 1251.5$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

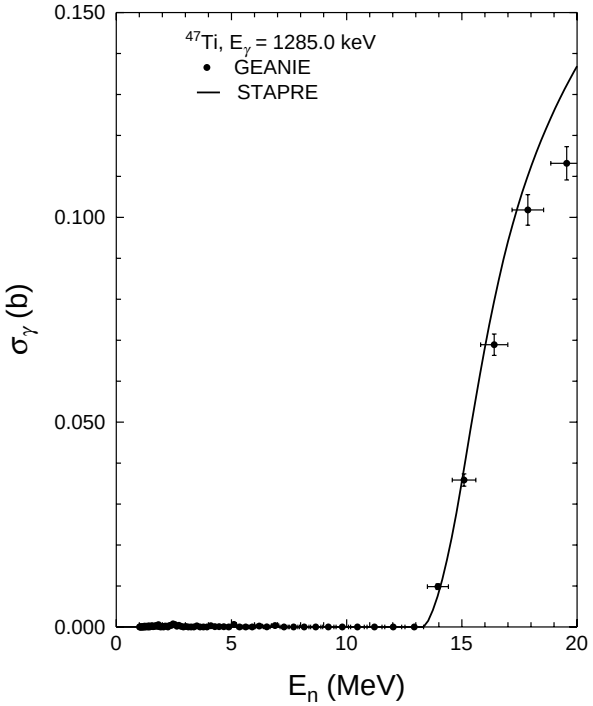

FIG. 96: Partial cross section for the $E_\gamma = 1284.8$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

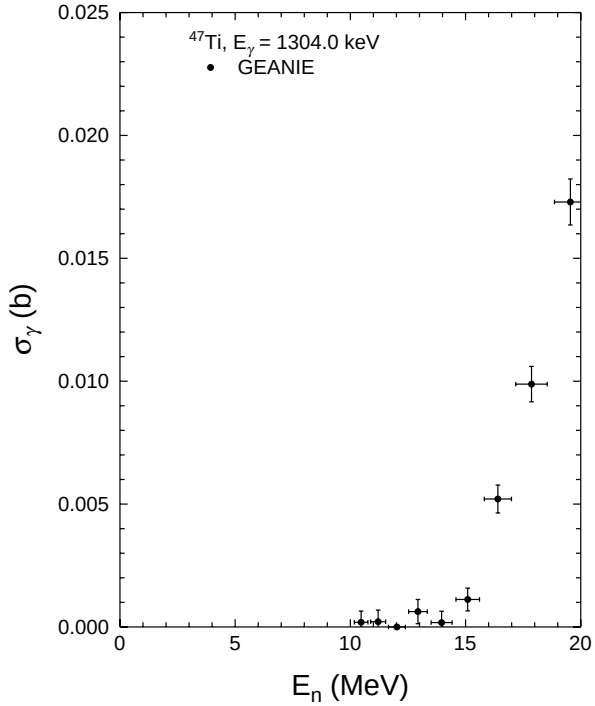

FIG. 97: Partial cross section for the $E_\gamma = 1304.6$-keV transition in ^{47}Ti, extracted from coax data.

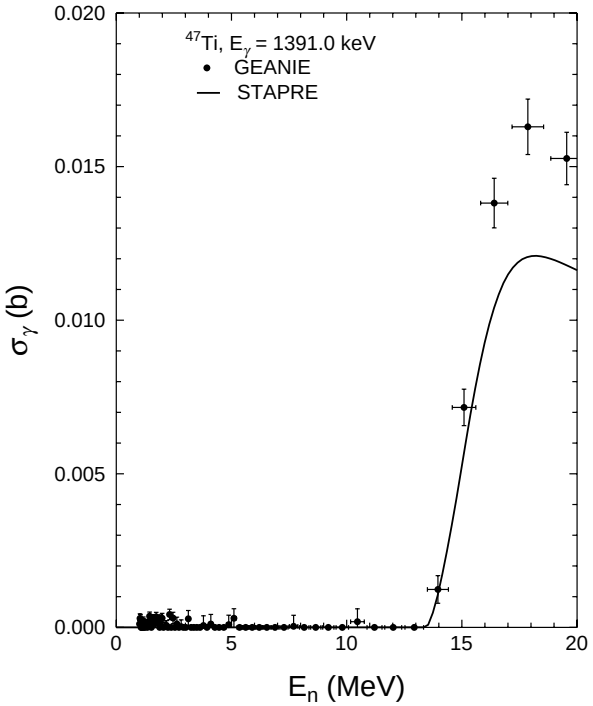

FIG. 98: Partial cross section for the $E_\gamma = 1390.5$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

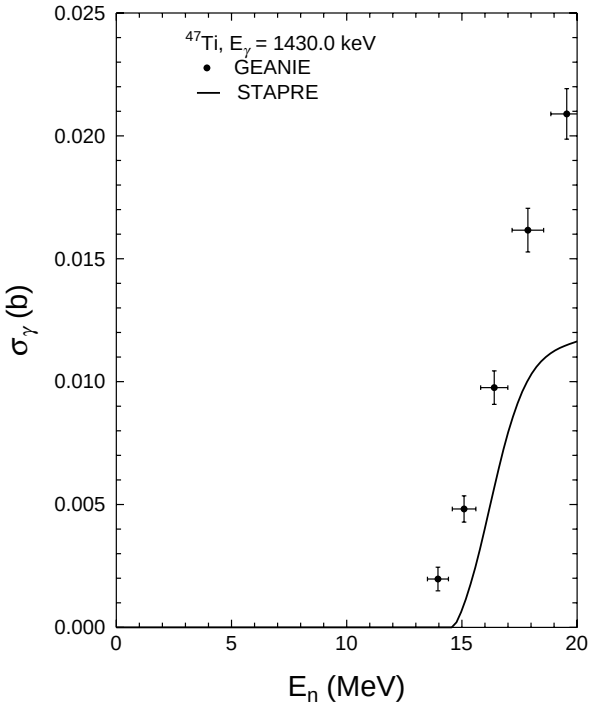

FIG. 99: Partial cross section for the $E_\gamma = 1430.6$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

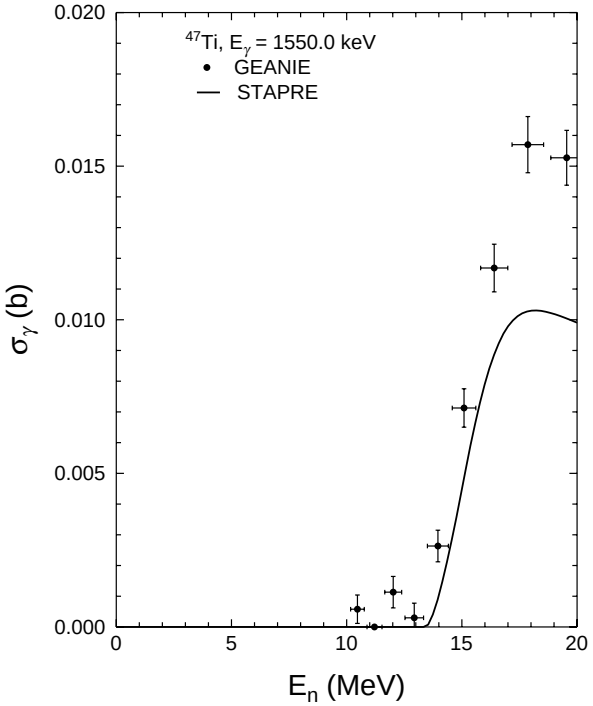

FIG. 100: Partial cross section for the $E_\gamma = 1549.9$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

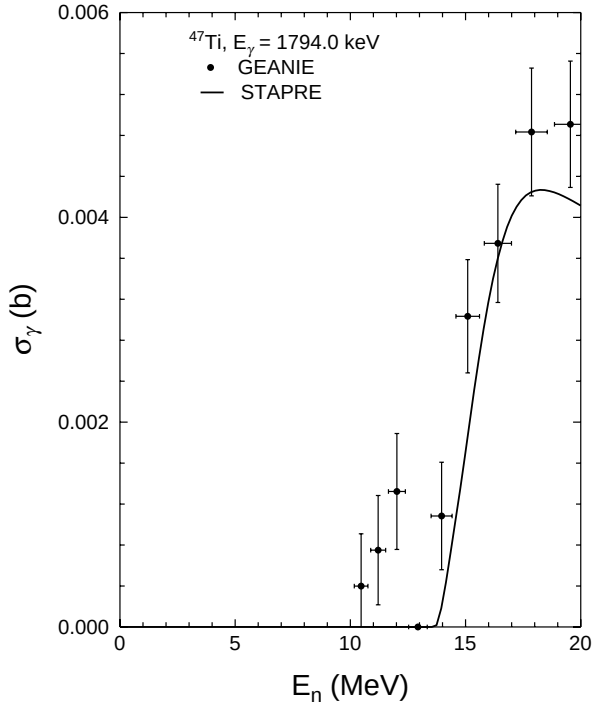

FIG. 101: Partial cross section for the $E_\gamma = 1793.9$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

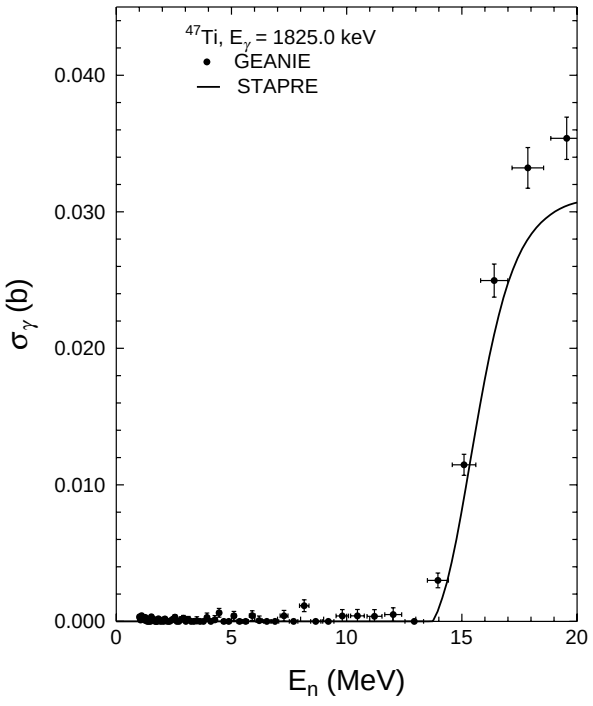

FIG. 102: Partial cross section for the $E_\gamma = 1825.1$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

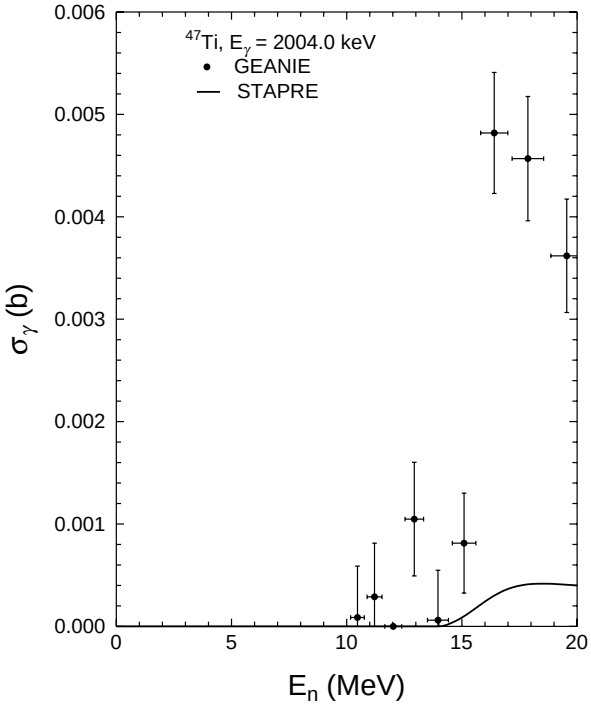

FIG. 103: Partial cross section for the $E_\gamma = 2004.1$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

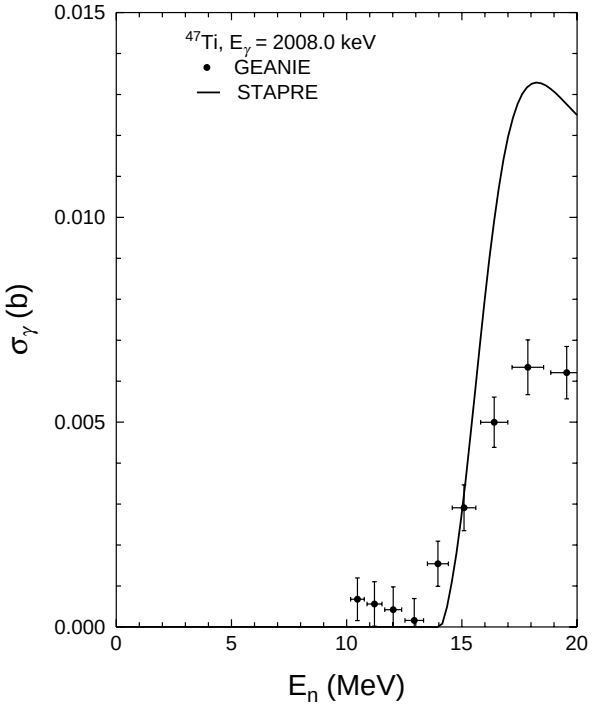

FIG. 104: Partial cross section for the $E_\gamma = 2009.4$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

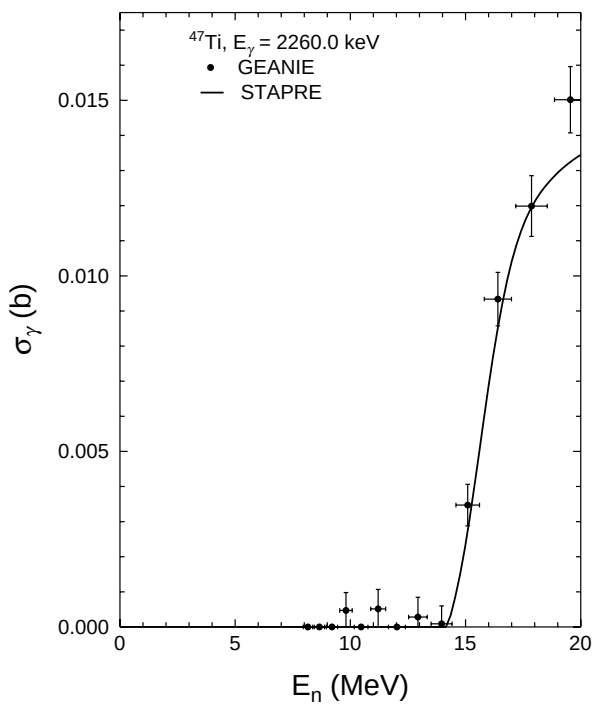

FIG. 105: Partial cross section for the $E_\gamma = 2259.3$-keV transition in ^{47}Ti, extracted from coax data. The data are compared to a STAPRE prediction.

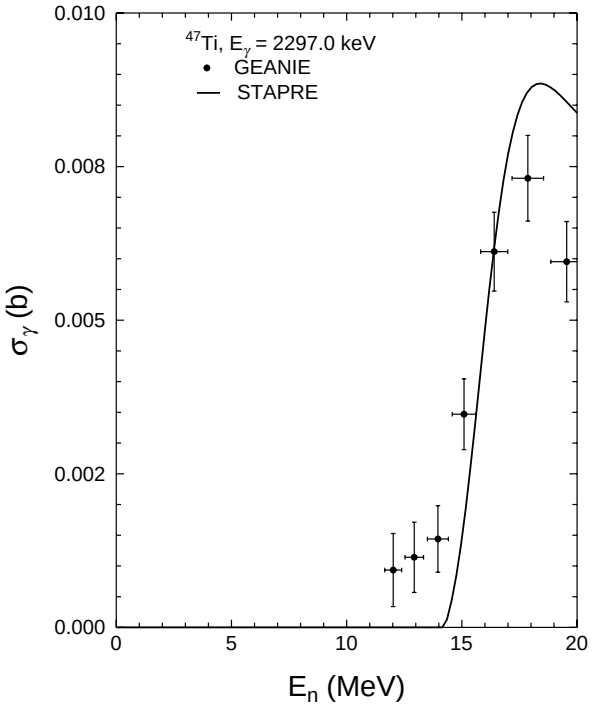

FIG. 106: Partial cross section for the $E_\gamma = 2297.0$-keV transition in ^{47}Ti, extracted from coax data.

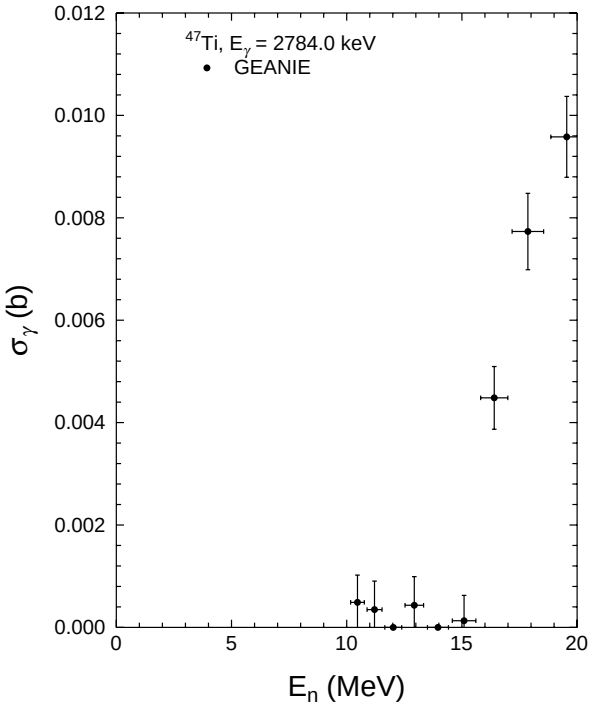

FIG. 107: Partial cross section for the $E_\gamma = 2784.5$-keV transition in ^{47}Ti, extracted from coax data.

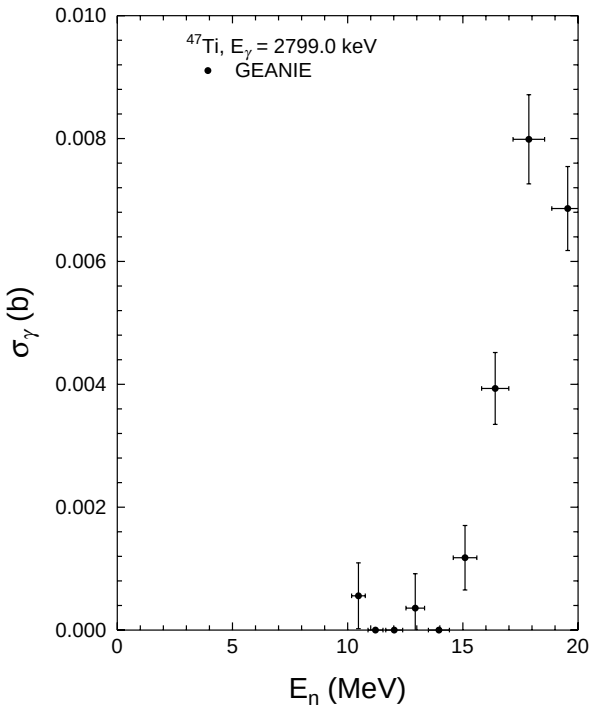

FIG. 108: Partial cross section for the $E_\gamma = 2799.7$-keV transition in ^{47}Ti, extracted from coax data.

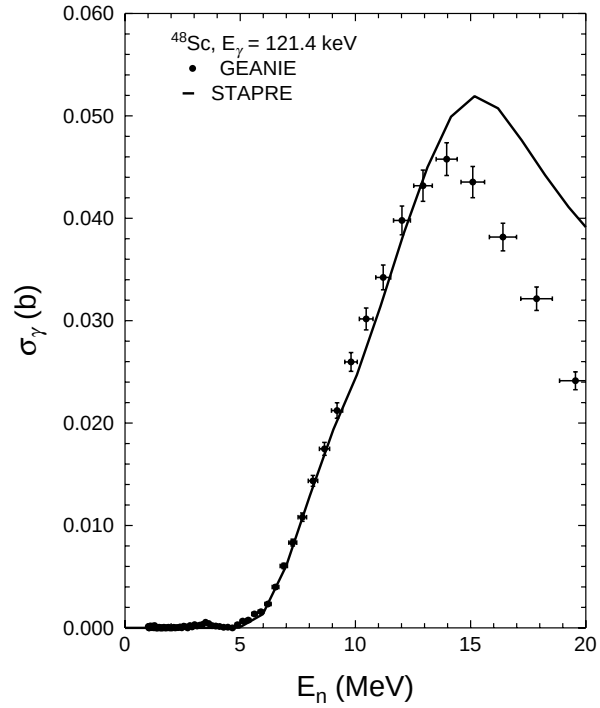

FIG. 109: Partial cross section for the $E_\gamma = 121.4$-keV transition in ^{48}Sc, extracted from planar data. The data are compared to a STAPRE prediction.

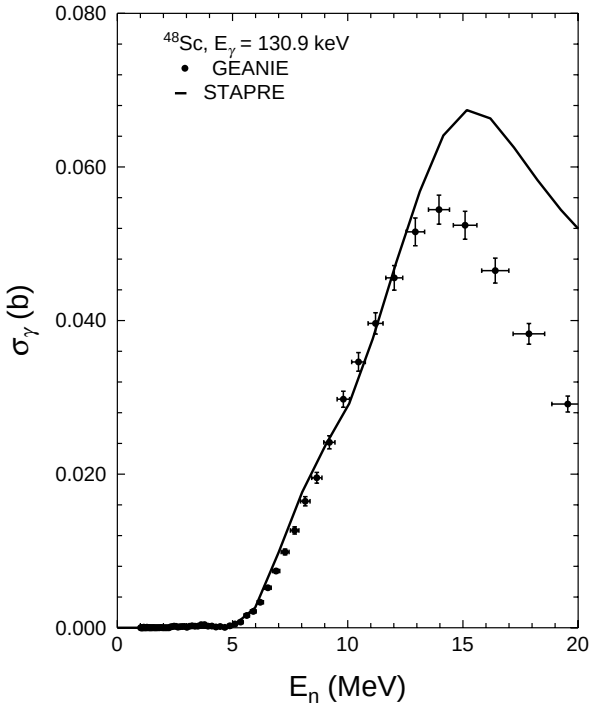

FIG. 110: Partial cross section for the $E_\gamma = 130.9$-keV transition in ^{48}Sc, extracted from planar data. The data are compared to a STAPRE prediction.

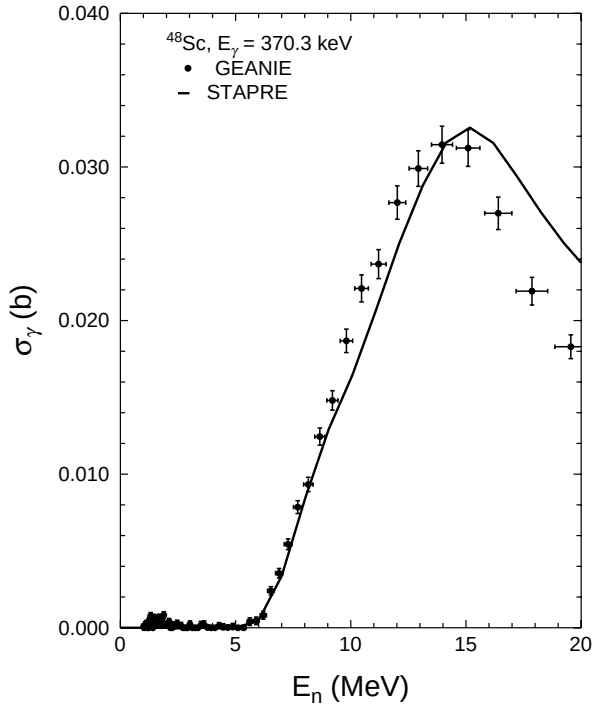

FIG. 111: Partial cross section for the $E_\gamma = 370.3$-keV transition in ^{48}Sc, extracted from coax data. The data are compared to a STAPRE prediction.

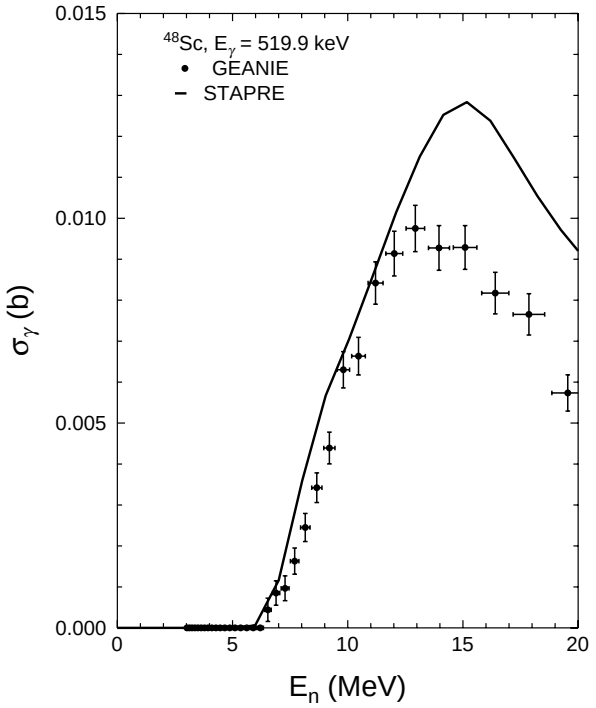

FIG. 112: Partial cross section for the $E_\gamma = 519.9$-keV transition in ^{48}Sc, extracted from coax data. The data are compared to a STAPRE prediction.

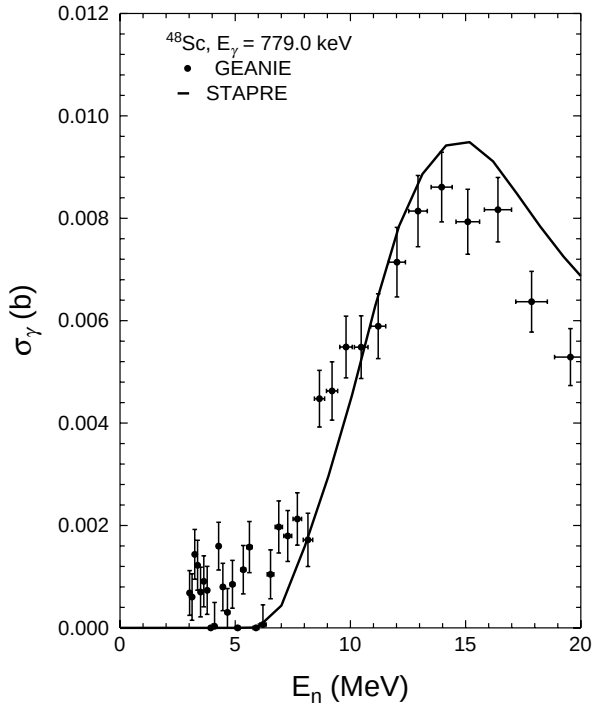

FIG. 113: Partial cross section for the $E_\gamma = 779.0$-keV transition in ^{48}Sc, extracted from coax data. The data are compared to a STAPRE prediction.

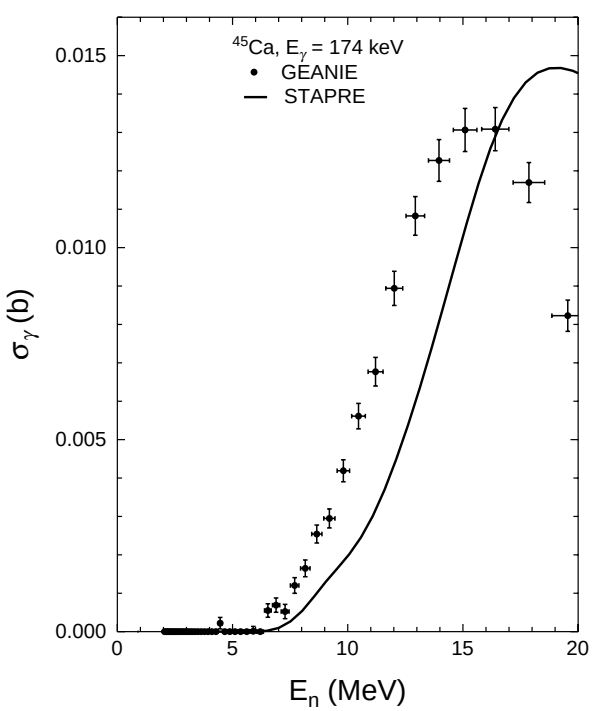

FIG. 114: Partial cross section for the $E_\gamma = 174.3$-keV transition in ^{45}Ca, extracted from planar data. The data are compared to a STAPRE prediction.