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EFFICIENT PRODUCTION OF 2-10KEV XRAYS BY LASER HEATED"UNDERDENSE RADIATORS"

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The next generation of high power lasers offers the prospect of creating multi-kilovolt x-rays with >10% efficiency. Such efficiencies are achieved with "underdense radiators", a non-traditional source of laser generated x-rays. Applications of these sources with the proposed National Ignition Facility (NIF) include volume preheating of experiments; bright, multi-keV backlighting; pumps for flourscent imaging of capsule dopants and doppler velocimetry; uniform irradiation of large test objects.

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