

Abstract Submitted  
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**Laser Forced Nuclear Fission** RICHARD KRISKE, University of Minnesota — Although it is well known that Lasers of the right wavelength can produce Nuclear Fusion and they can also be used in the Nuclear Fission enrichment process, it is not as well known that it may be possible to Force non fissile quantities of Uranium and Plutonium as well as Nuclear waste products to go into a state of Nuclear Fission. A Laser beam (perhaps a FEL beam) could potentially produce a short enough wavelength in the Hard X-ray spectrum or perhaps into the Gamma Ray spectrum and knock Neutrons out of the Nucleus and through constant application of the Laser beam force a small quantity into Nuclear Fission. The uses of this application would not be just to destroy Nuclear warheads in flight, more importantly it could be used to drastically reduce the quantity of Nuclear waste, by converting the Stored Energy of those Nuclei into Heat for generation of Electricity, and producing isotopes with drastically shorter half-lives. The half lives could be reduced from thousands of years to around one hundred years. This sort of Fission could be used to make weapons with lower yield from smaller amounts of material and it could also be used to make Nuclear weapons less viable, since they contain so much Potential Energy that a Laser could release from a long distance.

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