

Abstract Submitted
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Nuclear Lasers as Particle Producers and Accelerators RICHARD

KRISKE, None — Nobel gas Lasers such as He-Ne, Ar, Ar-Kr, hold in them a secret. There is a mystery as to how one can take a lower energy photon and produce a higher energy photon, from pumping, electron exchange or particle collision. Consider what would happen if you used the nearby Nuclear states between Xe-135, Xe-136 and Cs 135. At first glance it has the look and feel of yet another Noble Gas Laser. The difference is that it uses Neutron states within the Nucleus. A Gamma or X-ray Laser can be used as the optical pump in order to keep the Neutrons in a state of superposition between the gases. The Neutrons would be emitted with a modulated Gamma or X-ray photon. In essence it may be possible to have a totally new type of Laser—This author calls them "Matter Lasers", where a lower energy photon with fewer Quantum Numbers would be used with a Noble Gas to produce a particle beam with higher energy and more Quantum Numbers. Of course this matter producing beam is already portended by the workings of current Lasers. It may be possible to replace cumbersome particle accelerators with this type of Laser, to make mass from energy, via a Neutron Gas. This would be a great technological advance in Rocket Propulsion as well; low mass photon to high mass particle, such as a Higgs.

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None

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