

# Download Heating And Compression Of Thermonuclear Targets By Laser Beam

The High Power laser Energy Research facility (HiPER), is a proposed experimental laser-driven inertial confinement fusion (ICF) device undergoing preliminary design for possible construction in the European Union. HiPER is the first experiment designed specifically to study the "fast ignition" approach to generating nuclear fusion, which uses much smaller lasers than conventional designs, yet ... Inertial confinement fusion (ICF) is a type of fusion energy research that attempts to initiate nuclear fusion reactions by heating and compressing a fuel target, typically in the form of a pellet that most often contains a mixture of deuterium and tritium. Typical fuel pellets are about the size of a pinhead and contain around 10 milligrams of fuel.. To compress and heat the fuel, energy is ... Yet we begin to see the limitations of each system. Point defense systems, railguns, coilguns, conventional guns, or even lasers, are power limited in this exchange. From a science fictional standpoint, Dr. Campbell is of the opinion that laser weapons will fall into three broad categories: Heat Rays. Lasers that shines a beam of near constant power on its target for a prolonged period of time (from a few hundredths of a second or more).. As a weapon they are not as efficient as a blaster, and they do damage more slowly. - Heating And Compression Of Thermonuclear Targets By Laser Beam