

عنوان مقاله:

The density compression effect on fusion of D-T fuel for power generation with laser driven plasma block ignition

محل انتشار:

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خلاصه مقاله:

For calculation of fusion condition of solid fuel, the study of thermal conductivity is the important factors. It is significant effect on the transferring of temperature in all fuel. Thus, the nuclear reaction done by increasing temperature and develop in the solid fuel or in other words it is said that thermonuclear waves spread in solid fuel. Inertial confinement fusion is done in several ways; most recent fusion is ignition by plasma blocks accelerated by the main laser. With the creation of a new generation of high-power lasers (PW-ps), A nonlinear ponderomotive force, the block of the plasma with density of energy of and current densities of and 08KeV temperature accelerate into the main fuel. The accelerated plasma block interact with the main fuel and is causes of the primary ignition. In this thesis The effect of the compression of density in DT fuel for producing of high gain by laser plasma block ignition is studied. The initial density is increased by the secondary laser or X-ray then the fusion of DT fuel will be easier and energy efficiency is increased.

کلمات کلیدی:

Fast ignition, Chow and Bobbin test

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