

Photon fuelled electric power plants

ABSTRACT

Most of the underdeveloped countries have abundant sunlight to solve their basic electric power needs. Using natural sunlight and available conventional energy conversion technologies they can produce a huge amount of electricity to volte-face the global energy crisis. This work explores the possibility of implementing the entirely sunlight fuelled photovoltaic power systems, solar thermal power plants, laser ignited fusion power plants and sun powered laser triggered atmospheric electricity. Direct sun- light excited high energy solid state lasers, photovoltaic fed flash-lamp pumped solid state lasers, diode pumped solid state lasers and air laser systems are reviewed for applications in laser induced fusion to envisage sunlight powered electric power system operation. Methods of electricity generation described in this paper rely only on the sunlight as a natural free fuel.

Keyword: Photon fuel; Electric power plants; Electricity.