Abstract Submitted for the DPP10 Meeting of The American Physical Society

Low Power Driving Inertial Fusion Energy Concept¹ YIAN LEI, JINLI HU, CHENG LI, SHUCONG HUANG, Beijing University — Main stream deuterium-tritium fusion energy schemes are confronted with serious technical challenges such as first wall material, energy extraction, etc., due to the high energy neutron flux. Low power driving inertial fusion energy concept takes full advantage of the energy concentration mechanism of implosion, using large radius, room temperature target and low but high total energy driving power to achieve fusion energy production. The implosion driving medium acts also as the first wall and the energy absorbing blanket. A high speed water jet driving inertial fusion energy concept is discussed.

¹This work is supported by the Natural Science Foundation of China under the Nos. 10976001, 10935001.

Yian Lei Beijing University

Date submitted: 24 Aug 2010

Electronic form version 1.4