

Abstract Submitted
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The Progress of Research Project for Magnetized Target Fusion in China¹ XIAN-JUN YANG, Institute of Applied Physics and Computational Mathematics — The fusion of magnetized plasma called Magnetized Target Fusion (MTF) is a hot research area recently. It may significantly reduce the cost and size. Great progress has been achieved in past decades around the world. Five years ago, China initiated the MTF project and has gotten some progress as follows: 1. Verifying the feasibility of ignition of MTF by means of first principle and MHD simulation; 2. Generating the magnetic field over 1400 Tesla, which can be suppress the heat conduction from charged particles, deposit the energy of alpha particle to promote the ignition process, and produce the stable magnetized plasma for the target of ignition; 3. The imploding facility of FP-1 can put several Mega Joule energy to the solid liner of about ten gram in the range of microsecond risen time, while the simulating tool has been developed for design and analysis of the process; 4. The target of FRC can be generated by “YG 1 facility” while some simulating tools have be developed. Next five years, the above theoretical work and the experiments of MTF may be integrated to step up as the National project, which may make my term play an important lead role and be supposed to achieve farther progress in China.

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