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Status of the ICF program in China

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The inertial confinement fusion (ICF) program in China is to perform thermonuclear ignition and burning, and has made great progress so far. For ICF drivers, the laser facilities of SG-IIU (upgrading) and SG-IIIP (prototype) with both 8 beams and total laser energy output of tens kJ for 0.35µm wavelength (same below) and of SG-III with 48 beams and total laser energy of ~ 200kJ are operating and serving for target physics experiments. The ignition facility with laser energy output of more than 2.0MJ has been considered. The SG-III are very important to provide a scale-up from physical experiments in laser energy of hundreds kJ to MJ ignition. In addition, we are deeply investigating the target physics toward ignition. The innovative ignition schemes different from that performed on NIF, where the fusion ignition was unsuccessful, have been proposed as well.

Eligible for student paper award?

No

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