

Abstract Submitted  
for the DPP14 Meeting of  
The American Physical Society

**Optimization of the x-ray spectrum and radiation symmetry in the hohlraum** YONGKUN DING, SHAOEN JIANG, SHENYE LIU, SANWEI LI, TIANXUAN HUANG, Research Center of Laser Fusion, China Academy of Engineering Physics, Mianyang 621900, China, SHIYANG ZOU, KE LAN, WENHUA YE, YONGSHENG LI, GUOLI REN, JIANFA GU, Institute of Applied Physics and Computational Mathematics, Beijing 100088, China, BAOHAN ZHANG, XI-AODONG CHEN, Research Center of Laser Fusion, China Academy of Engineering Physics, Mianyang 621900, China, WENBING PEI, SHAOPING ZHU, Institute of Applied Physics and Computational Mathematics, Beijing 100088, China, WEIYAN ZHANG, China Academy of Engineering Physics, Mianyang 621900, China — The ultimate goal of laser-driven hohlraum is to create a radiation environment that ablatively implodes a capsule to ignition and burn. To obtain high fusion yield with minimum laser energy, the hohlraum drive must meet both the limited non-Planckian emission (M-band) and excellent uniformity. On the series of Shenguang laser facilities, several experiments have been done to characterize the x-ray spectrum and radiation symmetry of the laser-heated hohlraum. By optimizing the hohlraum structures and materials, the hohlraum performance was improved in flux intensity, symmetry and spectrum.

Yongkun Ding  
Research Center of Laser Fusion, China Academy of Engineering Physics,  
Mianyang 621900, China

Date submitted: 10 Jul 2014

Electronic form version 1.4