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· 简 讯 ·

## 流体直接冷却固体激光器实现激光输出验证

流体直接冷却薄片型固体激光介质是美国通用原子公司“液体激光器”方案的核心思想,是固体激光实现十万瓦级高功率输出的有效途径。固液表面损耗、液体流场影响以及腔体附加损耗等,是此类激光器所面临的新问题。2012年5月中旬,清华大学的流体直接冷却固体激光器进行了首次整机实验,实现了激光输出。近日,该激光器在调制模式工作下的峰值功率达到了1.2kW,激光光束的近场分布均匀。实验初步验证了流体直接冷却激光器的流场设计、高增益设计、腔体结构和大面积均匀抽运的可行性,得到了较为满意的结果,积累了大量实验数据。据查,这是国内首次公开报道此类激光器的研究成果。

( 巩马理、柳 强、闫 平供稿)