

*Oddělení diodově čerpaných laserů a realizační tým projektu HiLASE
Vás zve na seminář*

The way to next generation High Energy Class Diode Pumped Solid State Lasers (HEC-DPSSL)

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Because of their diode-pumping capability among other beneficial properties Ytterbium-doped materials have shown a huge potential in high peak-power lasers in the last decade. Nevertheless, the performance of today's large scale systems suffer from limited efficiency. Employing cryogenic cooling to depopulate the lower laser level is a very promising solution to overcome this drawback. The operation of a laser amplifier at cryogenic temperatures is a very demanding task.

Here we address several key issues. Temperature dependent cross section measurements which are carried out in cooperation with the HiLASE project are presented. Furthermore, we depict our laser induced damage-threshold measurement setup where samples can be tested under vacuum and cryogenic conditions. Finally we report on a design study for a cryogenic cooled joule class burst-mode laser system. This system will serve as a test bed for several issues concerning the next generation of cryogenically cooled HEC-DPSSL.

***který se bude konat dne 20.3.2012 od 10:00
v zasedacím sále***

Badatelského centra PALS.