



Fyzikální ústav AV ČR, v. v. i.
Na Slovance 2
182 21 Praha 8
hilase@fzu.cz
www.hilase.cz

*Oddělení diodově čerpaných laserů, sekce výkonových systémů,
a realizační tým projektu HiLASE
Vás zve na seminář*

Research activities of Laboratory for Laser-Matter Science, Institute for Chemical Research

Prof. Shuji Sakabe

Kyoto University, Japan

Laboratory for Laser-Matter Science was opened in Institute for Chemical Research, Kyoto University in 2003 by the author, to study the basic physics of laser-matter interactions and its applications and to cultivate human resources who can contribute to the progress of laser science and engineering in future academe and industry arena. In the laboratory, a laser system of CPA-Ti:sapphire was assembled by the author and his co-workers, considering his education philosophy for graduate students to learn laser technology. It is equipped in the temperature and humidity controlled clean room, and stably operated through a year. From early stage, the configuration of one laser and multiple interaction chambers, which are connected with each other by beam tubes, was taken and abundant experiments have been done efficiently. Though our facility is rather small, its operation can be a model for abuilding huge facilities in the world. We are currently studying two main issues; (1) physics of radiation (electrons, ions, THz waves, etc.) generation by intense laser and its applications (ultrafast electron diffraction (UED), neutron sources, etc.), and (2) physics of femtosecond laser interaction with surface (nano ablation, nano morphology, etc.) and its applications (processing, laser coloring, etc.).

In the presentation, first, as an personal introduction, the research experience of the author in the field of high power laser science in a quarter of century is briefly introduced, and second, LLMS, Kyoto University, and recent achievements of laser electron sources, UED, nano ablation with morphology, laser coloring, and so on are reviewed.

který se bude konat v pátek 21. 2. 2014 od 11:50 v zasedacím sále

Fyzikálního ústavu AV ČR, v.v.i.