

P O Z V Á N K A
na spojený seminář
odd. dielektrik a odd. tenkých vrstev a nanostruktur,

který se koná v úterý **19.4.2016 – 10.00h**,
v přednáškovém sále Fyzikálního ústavu AV ČR,
Na Slovance 2, Praha 8

Program:

Peter Pikna
Oddělení tenkých vrstev a nanostruktur

Ultrafast processes in nanostructured and polycrystalline silicon solar cells

Whereas charge carrier lifetime in monocrystalline silicon is of the order of milliseconds, it is only a few nanoseconds in nanostructured and polycrystalline thin film solar cells. Investigation of crucial recombination processes in the latter materials represents a very challenging task. What happens in a nanostructured solar cell directly after illumination? Is the carrier lifetime the same under pulsed and continuous illumination? These and similar questions are going to be discussed and answered.

Hynek Němec
Oddělení dielektrik

Conductivity mechanisms in doped SnO₂ nanoparticles

DC conductivity is affected by all processes involved in long-range charge transport, while terahertz conductivity carries information about charge transport on nanometer distances. Measurements using terahertz spectroscopy thus reveal conductivity inside the SnO₂ nanoparticles, and they also indicate the efficiency of the charge transport between the nanoparticles. The morphology inferred from the terahertz conductivity spectra is in a good agreement with conductivity image obtained using conductive AFM.

Seminář uvede Petr Kužel

Hynek Němec
za vedení semináře

Jiří Hlinka
vedoucí oddělení dielektrik

Antonín Fejfar
vedoucí oddělení tenkých vrstev
a nanostruktur