

Institute of Physics SAS, Dúbravská cesta 9

Invites you to a talk of

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Neaspec GmbH, Munich (Germany)

Imaging and spectroscopy at 10nm spatial resolution

Tuesday 14th May 2019, 14:00

Seminar room: Institute of Electrical Engineering SAS

Scattering-type scanning near-field optical microscopy (s-SNOM) has emerged as one of the key technologies to study the optical properties of physical, chemical and biological materials on the 10-nm length scale – far beyond the diffraction limit of light. With the development of Fourier transform infrared spectroscopy on the nanoscale (nano-FTIR), we have successfully extended s-SNOM towards a complete spectroscopic analysis tool that is capable of analyzing complex polymer nanostructures (see Figure), biological materials, organic semiconductors and two-dimensional materials. Additionally, the modular design of the microscope enables a straightforward realization of pump-probe near-field measurements and even the incorporation of existing light sources, e.g. synchrotron radiation.

This presentation will introduce the basic principle of near-field optical microscopy and nano-FTIR and address their impact and key applications in the field of organic, bio and 2D materials.

