



Pozvánka na seminár

Ústavu experimentálnej fyziky

SAV, v. v. i.



utorok, 12. mája 2026 o 10:30

Budova PROMATECH m. č. 108, Watsonova 47A, Košice

„Application of Liquid Crystal Films for Micro-LEDs Inspection“

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Anotácia:

The development of micro-LED technology has progressed to small sizes of just a few microns and has attracted great interest for display applications. However, inspecting small-sized micro-LED dies using traditional electroluminescence methods poses challenges. This talk demonstrates a novel, to the best of our knowledge, method for inspecting micro-LED dies by placing a liquid crystal (LC) film over the micro-LED wafer. When illuminated, micro-LED dies can generate an open-circuit voltage through the photovoltaic effect, which can be detected by observing changes in the transmittance of the LC film. The proposed approach shows that voltages of several volts can be effectively detected using LC films.

„Application of optical and photothermal properties of CsWO₃ NPs in optical imaging and cancer therapeutics“

assoc. prof. Po-Sheng Hu

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Anotácia:

The capabilities of CsWO₃ nanoparticles to transmit in the visible range from 400 nm to 650 nm and undergo strong near-infrared photothermal conversion from 750 nm to 2400 nm make them functional materials in the fabrication of focus-tunable optical lenses and therapeutic agents for cancer diseases. In this seminar talk, CsWO₃ NPs, as a robust functional material, will be introduced for its characteristics of stoichiometric, optical, photothermal properties, and then several examples will be reviewed to authenticate their potentials in optical imaging and cancer therapeutics.