

27th Conference of Doctoral Students
Faculty of Electrical Engineering and Information Technology
Slovak University of Technology in Bratislava

May 28, 2025

Session V

PHYSICAL ENGINEERING SPACE ENGINEERING

Committee: doc. Ing. Miroslav Mikolášek, PhD.
doc. Ing. Vladimír Kršjak, PhD.
Ing. Peter Ondrejka, PhD.

8:30 - 11:30

1. **Structural characterization of twinning in β -Ga₂O₃ filament inclusions on Ga₂O₃ thin films epitaxially grown on sapphire substrates by MOCVD.**
Roshan Jeevan Chidambaram, Alica Rosová, Edmund Dobročka, Kristína Hušeková, Milan Čapajna and Filip Gucmann
2. **Binder free Ni-Ni(OH)₂ core-shell electrodes with enhanced specific capacitance for supercapacitor applications**
Áron Straňovský, Michaela Sojková, Rastislav Řeháček and Miroslav Mikolášek
3. **Impact of Short Current Pulse at Various State of Charge and State of Health Levels on Internal Resistance for Accurate LIB Temperature Estimation**
Matej Novák, Miroslav Mikolášek
4. **Temperature dependence effect on the spectrometric properties of pixel-based radiation detectors Timepix3 with different sensors**
Kurucová Nikola, Šagátová Andrea, Bergmann Benedikt, Smolyanskiy Petr
5. **Investigation of Neutron and Proton Irradiation Effects in Ferritic Alloys Using Positron Annihilation Techniques**
Sofia Gašparová, Vladimír Kršjak, Pavol Noga, Jaroslav Šoltés, Marek Mikloš, Dušan Vaňa, Stanislav Sojak, Martin Petriska, Yamin Song, Branislav Stríbrnský, Jarmila Degmová

14:00
Award Ceremony (AB-150)