

Monday 17th April @ 14h00

in Room 204 of the research centre

Prof. Andris Šutka received his Ph. D. in chemical engineering sciences in 2012 at Riga Technical University (RTU) in Latvia after conducting research on transition metal oxide nanoparticle physical and chemical properties. His main scope of interests during the Ph.D. studies covered defect chemistry of metal oxides, chemical oxide semiconductor gas sensors and photocatalysts. After obtaining his Ph.D., he executed postdoctoral research in Estonia at the University of Tartu (2013–2016) where he pursued his attention to suspended particle smart window devices. In 2017 he established and started to lead his structural unit – the Research Laboratory of Functional Materials Technologies under the Faculty of Materials Science and Applied Chemistry. His research interests lie in soft triboelectric and piezoelectric materials, as well as semiconductor oxide nanomaterials for gas sensing, photochromic, photocatalytic, and antimicrobial applications.



The seminar given by Prof. Andris Šutka will focus on the potential of development of **triboelectric nanomaterials** for **energy harvesting** as presented in more details in his recent publications on the subject [1–3].

1. Linarts, A.; Sherrell, P.C.; Mālnieks, K.; Ellis, A. v.; Sutka, A. Electrospinning Triboelectric Laminates: A Pathway for Scaling Energy Harvesters. *Small* **2023**, 2205563, doi:10.1002/smll.202205563.
2. Mālnieks, K.; Kaufelde, P.; Linarts, A.; Lapčinskis, L.; Verners, O.; Sutka, A. Triboelectric Laminates from Polydimethylsiloxane Bilayers for Acoustic Energy Harvesting. *Mater Lett* **2022**, 329, 133188, doi:10.1016/j.matlet.2022.133188.
3. Ģērmane, L.; Lapčinskis, L.; Iesalnieks, M.; Sutka, A. Surface Engineering of PDMS for Improved Triboelectrification. *Mater Adv* **2023**, 4, 875–880, doi:10.1039/D2MA01015A.