### **Příspěvky týmu VUT v časopisech v roce 2018 s tematickou návazností na projekt AMISPEC**

### (supp\_mat\_liter\_vut\_tematicky\_2018.doc)

### Příspěvky týmu z VUT v impaktovaných mezinárodních časopisech (r. 2018) tematicky odpovídající problematice řešené v projektu Amispec, bez dedikace na projekt:

1. **J. A. Arregi, M. Horký, K. Fabianová**, R. Tolley, E. E. Fullerton, **V. Uhlíř**: Magnetization reversal and confinement effects across the metamagnetic phase transition in mesoscale FeRh structures. J. Phys. D: Appl. Phys 51 (2018) 105001. (<http://doi.org/10.1088/1361-6463/aaaa5a>)
2. V. Svatoš, W. Sun, **R. Kalousek**, I. Gablech, J. Pekárek, P. Neužil: Single Measurement Determination of Mechanical, Electrical, and Surface Properties of a Single Carbon Nanotube via Force Microscopy. Sens. Act. A 271 (2018) 217. (<http://doi.org/10.1016/j.sna.2018.01.014>)
3. O. Šik, **P. Bábor, J. Polčák**, E. Belas, P. Moravec, L. Grmela, J. Staněk: Low Energy Ion Scattering as a depth profiling tool for thin layers - Case of bromine Methanol etched CdTe. Vacuum 152 (2018) 138. (<http://doi.org/10.1016/j.vacuum.2018.03.014>)
4. **M. Kolíbal, T. Pejchal, T. Musálek, T. Šikola**: Catalyst-substrate interaction and growth delay in vapor-liquid-solid nanowire growth. Nanotechnology 29 (2018) 205603. (<http://doi.org/10.1088/1361-6528/aab474>)

1. A. Daňhel, **F. Ligmajer, T. Šikola**, A. Walcarius, M. Fojta: Electrodeposition of silver amalgam particles on ITO – Towards novel electrode material. J. Electroanal. Chem. 821 (2017) 53. (<http://doi.org/10.1016/j.jelechem.2017.12.008> )
2. **M. Horák, V. Badin, J. Zlámal**: Accurate interpolation of 3D fields in charged particle optics. Ultramiscroscopy 189 (2018) 95. (<http://doi.org/10.1016/j.ultramic.2018.03.023> )
3. **M. Horák, K. Bukvišová, V. Švarc, J. Jaskowiec, V. Křápek, T. Šikola**: Comparative study of plasmonic antennas fabricated by electron beam and focused ion beam lithography. Sci. Rep. 8 (2018) 9640. (<http://doi.org/10.1038/s41598-018-28037-1> )
4. J. Redondo, M. Telychko, **P. Procházka, M. Konečný**, J. Berger, M. Vondráček, **J. Čechal**, P. Jelínek, M. Švec: Simple device for the growth of micrometer-sized monocrystalline single-layer graphene on SiC(0001). J. Vac. Sci. Tech A 36 (2018) 031401. (<http://doi.org/10.1116/1.5008977>)
5. **F. Ligmajer, L. Kejík**, U. Tiwari, M. Qiu, J. Nag, **M. Konečný, T. Šikola**, W. Jin, R. F. Haglund Jr., K. Appavoo, D. Y. Lei: Epitaxial VO2 nanostructures: A route to large-scale, switchable dielectric metasurfaces. ACS Photonics 5 (7) (2018) p. 2561-2567. (<http://doi.org/10.1021/acsphotonics.7b01384>)
6. F. Pressacco, **V. Uhlíř**, M. Gatti, A. Nicolaou, A. Bendounan, **J. A. Arregi**, S. K. K. Patel, E. E. Fullerton, D. Krizmancic, F. Sirotti: Laser induced phase transition in epitaxial FeRh layers studied by pump-probe valence band photoemission. Structural Dynamics 5 (2018) 034501. (<http://doi.org/10.1063/1.5027809>)
7. V. A. Ponomarev, I. V. Sukhorukova, A. N. Sheveyko, E. S. Permyakova, A. M. Manakhov, S. G. Ignatov, N. A. Gloushankova, I. Y. Zhitnyak, O. I. Lebedev, **J. Polčák**, A. M. Kozmin, D. V. Shtansky: Antibacterial Performance of TiCaPCON Films Incorporated with Ag, Pt, and Zn: Bactericidal Ions Versus Surface Microgalvanic Interactions. ACS Appl. Mater. Interfaces 10 (29) (2018), p. 24406-24420. (<http://doi.org/10.1021/acsami.8b06671>)
8. E. S. Permyakova, **J. Polčák**, P. V. Slukin, S. G. Ignatov, N. A. Gloushankova, L. Zajíčková, D. V. Shtansky, A. Manakhov: Antibacterial biocompatible PCL nanofibers modified by COOH-anhydride plasma polymers and gentamicin immobilization. Materials & Design 153 (2018) p. 60-70. (<http://doi.org/10.1016/j.matdes.2018.05.002>)
9. A. G. Bannov, A. Manakhov, A. A. Shibaev, A. V. Ukhina, **J. Polčák**, E. A. Maksimovskii: Synthesis dynamics of graphite oxide. Thermochimica Acta 663 (2018) p. 165-175. (<http://doi.org/10.1016/j.tca.2018.03.017>)
10. A. Fassbender, **J. Babocký**, **P. Dvořák**, **V. Křápek**, S. Linden: Direct phase mapping of broadband Laguerre-Gaussian metasurfaces. APL Photonics 3 (2018) p. 110803. (<http://doi.org/10.1063/1.5049368>)
11. **V. Stará**, **P. Procházka**, **D. Mareček**, **T. Šikola**, **J. Čechal**: Ambipolar remote graphene doping by low-energy electron beam irradiation. Nanoscale 10 (37) (2018) p. 17520-17524. (<http://doi.org/10.1039/C8NR06483K>)
12. **M. Dhankhar**, **M. Vaňatka**, **M. Urbánek**: Fabrication of Magnetic Nanostructures on Silicon Nitride Membranes for Magnetic Vortex Studies Using Transmission Microscopy Techniques. J. Visualized Experiments 137 (2018) p. e57817. (<http://doi.org/10.3791/57817>)
13. **P. Dvořák**, **M. Kvapil**, P. Bouchal, **Z. Édes**, **T. Šamořil**, **M. Hrtoň**, **F. Ligmajer**, **V. Křápek**, **T. Šikola**: Near-field digital holography: a tool for plasmon phase imaging. Nanoscale 10 (2018) p.21363-21368. (<http://doi.org/10.1039/C8NR07438K>)
14. M. Ameen Poyli, **M. Hrtoň**, I. A. Nechaev, A. Y. Nikitin, P. M. Echenique, V. M. Silkin, J. Aizpurua, R. Esteban: Controlling surface charge and spin density oscillations by Dirac plasmon interaction in thin topological insulators. Physical Review B 97 (11) (2018) p. 115420. (<http://doi.org/10.1103/PhysRevB.97.115420>)
15. **R. Holeňá**k, T. Spusta, **M. Potoček**, D. Salamon, **T. Šikola**, **P. Bábor**: 3D localization of spinel (MgAl2O4 ) and sodium contamination in alumina by TOF-SIMS. Materials Characterization 148 (2019) p. 252-258. (<http://doi.org/10.1016/j.matchar.2018.12.019>)
16. E. S. Permyakova, L. Y. Antipina, A. M. Kovalskii, I. Y. Zhitnyak, K. Y. Gudz, **J. Polčák**, P. B. Sorokin, A. M. Manakhov, D. V. Shtansky. Experimental and Theoretical Study of Doxorubicin Physicochemical Interaction with BN(O) Drug Delivery Nanocarriers. Journal of Physical Chemistry C 122 (46) (2018) p. 26409-26418. (<http://doi.org/10.1021/acs.jpcc.8b07531>)
17. V. A. Ponovarev, …, **J. Polčák**, D. V. Shtansky. Microstructure, chemical and biological performance of boron-modified TiCaPCON films. Applied Surface Science 465 (28) (2019) p. 486-497. (<http://doi.org/10.1016/j.apsusc.2018.09.157>)

### Příspěvky týmu z VUT v národních časopisech 2018

**1. M. Konečný**, **V. Hegrová**, **P. Procházka**, **J. Piastek**, **F. Ligmajer**, **M. Bartošík**, **T. Šikola**: Příprava a využití grafen-kovových hybridních struktur pro biodetekci metodou povrchem zesílené Ramanovy spektroskopie. Jemná mechanika a optika 63, 9 (2018) s. 261-263.

**2. P. Binková, J. Babocký, P. Dvořák, R. Kalousek, T. Šikola:** „Kovové nanostruktury na světle aneb barevný svět plazmoniky“, Jemná mechanika a optika **63**, 271 (2018).