

**Zoznam publikácií vytvorených v rámci projektu  
Modifikované (nano)textilné materiály pre zdravotnícke technológie (MODEX)  
v následnom monitorovanom období**

1. Nanoparticles in homogeneous, micro-and nanometric structures based on liquid crystals: morphology and dielectric properties, P. Kopčanský, M. Timko, I. Studenyak, O. Kovalchuk, Košice, 2020, 200 pp, published by publishing house EQUILIBRIA Kosice 2020, ISBN 978-80-8143-275-0 (podiel: 10%)
2. Dispersion of magnetic susceptibility in a suspension of flexible ferromagnetic rods, Molcan, M., Kopcansky, P., Timko, M., Rajnak, M., Gojzewski, H., Čebers A., Journal of Molecular Liquids 305 (2020) 112823 (podiel: 30%)
3. MODIFICATION OF DIAMAGNETIC MATERIALS USING MAGNETIC FLUIDS I. SAFARIK, J. PROCHAZKOVA, E. BALDIKOVA, M. TIMKO, P. KOPCANSKY, M. RAJNAK, N. TORMA, K. POSPISKOVA, Ukr. J. Phys. 2020, 65 (9) 751-760 (podiel: 20%)
4. Magnetically modified electrospun nanofibers for hyperthermiaPACS treatment, MATUS MOLCAN, IVO SAFARIK, KRISTYNA POSPISKOVA, KATARINA PAULOVICOVA, MILAN TIMKO, PETER KOPCANSKY, NORBERT TORMA, Ukr. J. Phys. 2020, 65 (8) 655-661 (podiel: 30%)
5. Magnetic hyperthermia study of magnetosome chain systems in tissue-mimicking phantom, M. Molcan, K. Kaczmarek, M. Kubovcikova, H.Gojzewski, J. Kovac, M. Timko, A. Józefczak, Journal of Molecular Liquids 320 (2020) 114470 (podiel: 20 %)
6. Temperature dependence of dielectric properties of the liquid crystal 6CB with the embeded Ag<sub>7</sub>GeS<sub>5</sub>I nanoparticles, S.I. Poberezhets, O.V. Kovalchuk, I.P. Studenyak, T.M. Kovalchuk, I.I. Poberezhets, V. Lacková, M. Timko, P. Kopčanský, Semiconductor Physics, Quantum Electronics & Optoelectronics 2020, Vol. 23 (2) 129-135 (podiel: 10%)
7. ŠTRBÁK, O. - ANTAL, I., KHMARA, I. - KONERACKÁ, M. - KUBOVČÍKOVÁ, M. - ZÁVIŠOVÁ, V. - MOLČAN, M. - JURÍKOVÁ, A. - HNILICOVÁ, P. - GOMBOŠ, J. - KADASOVÁ, N. - DOBROTA, D. Influence of Dextran Molecular Weight on the Physical Properties of Magnetic Nanoparticles for Hyperthermia and MRI Applications. Nanomaterials, 2020, vol. 10, no. 12, art. no. 2468 (podiel: 10%)
8. Electrical discharges in ferrofluids based on mineral oil and novelgas-to-liquid oil, Juraj Kurimsky, Michal Rajnak, Roman Cimbala, Katarina Paulovicova, Zbigniew Rozynek, Peter Kopcansky, Milan Timko, Journal of Molecular Liquids 325 (2021) 115244 (podiel: 10%)
9. Ferromagnetic and antiferromagnetic liquid crystal suspensions: Experiment and theory, Sergii Burylov, Danil Petrov, Veronika Lacková, Katarína Zakutanská, Natalia Burylova, Alexey Voroshilova, Vyacheslav Skosara, Filippo Agrestid, Peter Kopčanský, Natália Tomašovičová, Journal of Molecular Liquids 321 (2021) 114467, pp. 13 (podiel: 10%)
10. Cotton Textile/Iron Oxide Nanozyme Composites with Peroxidase-like Activity: Preparation, Characterization, and Application, Ivo Safarik, Jitka Prochazkova, Martin A. Schroer, Vasil M. Garamus, Peter Kopcansky, Milan Timko, Michal Rajnak, Maksym Karpets, Oleksandr I. Ivankov, Mikhail V. Avdeev, Viktor I. Petrenko, Leonid Bulavin, and Kristyna Pospiskova, ACS Appl. Mater. Interfaces 2021, 13, 23627–23637 (podiel: 40%)
11. Influence of magnetic nanoparticles on dielectric properties of Shell oil transformer oil, O.V. Kovalchuk, O.B. Nesterenko, V.Yo. Kotovskyi, I.P. Studenyak, T.M. Kovalchuk, K. Paulovičová, M. Timko, P. Kopčanský, K. Parekh, R.V. Upadhyay, Semiconductor Physics, Quantum Electronics & Optoelectronics 2021, V. 24, No 2., 154-159 (podiel: 10%)

12. Scalable production of magnetic fluorescent cellulose microparticles, Kristyna Pospiskova, Gerhard J. Mohr, Jitka Prochazkova, Milan Timko, Michal Rajnak, Katarina Paulovicova, Peter Kopcansky, Giorgia Giovannini, Luciano F. Boesel, Ivo Safarik, *Cellulose* (2021) 28: 7675–7685 (podiel: 40%)
13. Longitudinal and Transverse Relaxivity Analysis of Native Ferritin and Magnetoferitin at 7 T MRI, Oliver Strbak, Lucia Balejcikova, Martina Kmetova, Jan Gombos, Jozef Kovac, Dusan Dobrota and Peter Kopcansky, *International Journal of Molecular Sciences* 2021, 22, 8487 (podiel: 10%)
14. Dynamic magnetic response of ferrofluids under a static electric field, Michal Rajnak, Bystrik Dolnik, Patrik Hodermarsky, Katarina Paulovicova, Roman Cimbala, Milan Timko, Peter Kopcansky, *Physics of Fluids* 33, 082006 (2021) (podiel: 10%)
15. HOVHANNISYAN, Vladimir - ŠIPOŠOVÁ, Katarína - MUSATOV, Andrey - CHEN, Shean-Jen. Development of multifunctional nanocomposites for controlled drug delivery and hyperthermia. *Scientific Reports*, 2021, vol. 11, no. 1, art. no. 5528 (podiel: 20%)
16. SHLAPA, Yulia - TIMASHKOV, Illia - VELTRUSKÁ, Kateřina - ŠIPOŠOVÁ, Katarína - GARČÁROVÁ, Ivana - MUSATOV, Andrey - SOLOPAN, Sergii - KUBOVČÍKOVÁ, Martina - BELOUS, Anatolii. Structural and physical-chemical characterization of redox active CeO<sub>2</sub> nanoparticles synthesized by precipitation in water-alcohol solutions. *Nanotechnology* 2021, vol. 32, no. 31, art. no. 315706 (podiel: 10%)
17. ŠIPOŠOVÁ, Katarína - KOŽÁR, Tibor - ŠTUPÁKOVÁ, Michaela - MUSATOV, Andrey. Complementary experimental and computational analysis of the effects of non-ionic detergents and phospholipids on insulin amyloid aggregation. *Colloids and Surfaces B - Biointerfaces* 2021, vol. 197, art. no. 111428 (podiel: 10%)
18. Safarik, I., Prochazkova, J., Baldikova, E., Pospiskova, K.: Magnetic textile solid phase extraction. *Nanosensors and Nanodevices for Smart Multifunctional Textiles*, 2021 Elsevier (Ehrman, A., Nguyen, T.A., Tri, P.N., Eds.), chapter 10, pp. 149-161 (podiel: 40%)
19. Safarik, I., Prochazkova, J., Pospiskova, K.: Rapid magnetic modification of diamagnetic particulate and high aspect ratio materials. *J. Magn. Magn. Mater.* 518 (2021) 167430 (podiel: 20%)
20. Safarik, I., Prochazkova, J., Baldikova, E., Pospiskova, K.: Commercially available color-catching sheets for Magnetic textile solid phase extraction of water-soluble dyes. *Measurement* 172 (2021) 108877 (podiel: 40%)
21. Safarik, I., Baldikova, E., Prochazkova, J., Pospiskova, K.: Magnetically modified biological materials for dye removal. *Advanced Magnetic Adsorbents for Water Treatment* (Meili L., Dotto G.L., eds). *Environmental Chemistry for a Sustainable World* 61, chapter 8, Springer Nature Switzerland AG 2021, pp. 223-257 (podiel: 20%)