
HEKRDLA, M., ROESEL, D., HANSEN, N., FREDERICK, S., UMAR, K., PETRÁKOVÁ, V. Optimized molecule detection in localization microscopy with selected false positive probability. *Nature Communications*. 2025, **16**(1), 601. ISSN 2041-1723. E-ISSN 2041-1723. Dostupné z: <https://doi.org/10.1038/s41467-025-55952-5>.

JAVANAINEN, M., ŠIMEK, J., TRANTER, D., O'KEEFE, S., KARKI, S., BIRIUKOV, D., ŠACHL, R., PAAVILAINEN, V. O. Lipid Scrambling Pathways in the Sec61 Translocon Complex. *Journal of the American Chemical Society*. 2025, **147**(19), 15970-15984. ISSN 0002-7863. E-ISSN 1520-5126. Dostupné z: <https://doi.org/10.1021/jacs.4c11142>.

KLOZ, M., DOSTÁL, J., MUKHERJEE, A., PIŽL, M., ŠEBESTA, F., HILL, M. G., GRAY, H. B., ZÁLIŠ, S., VLČEK, A. Real-Time Tracking of Photoinduced Metal-Metal Bond Formation in a d8d8 Di-Iridium Complex by Vibrational Coherence and Femtosecond Stimulated Raman Spectroscopy. *Journal of the American Chemical Society*. 2025, **147**(11), 9810-9824. ISSN 0002-7863. E-ISSN 1520-5126. Dostupné z: <https://doi.org/10.1021/jacs.4c18527>.

LANGMAIER, J., TROJÁNEK, A., SAMEC, Z. Solvent effect on crown ether complexation of Na⁺, Cs⁺ and Sr²⁺ ions investigated by ion transfer voltammetry at a polarized water/organic solvent interface. *Journal of Electroanalytical Chemistry*. 2025, **987**(JUN 2025), 119115. ISSN 1572-6657. E-ISSN 1873-2569. Dostupné z: <https://doi.org/10.1016/j.jelechem.2025.119115>.

LUDAČKA, P., LIŠKA, V., SÝKORA, J., KUBÁT, P., MOSINGER, J. Luminescent Oxygen Sensor with Self-Sterilization Properties Based on Platinum(II)octaethylporphyrin in Polymeric Nanofibers. *ACS Materials Au*. 2025, **5**(2), 331-338. ISSN 2694-2461. E-ISSN 2694-2461. Dostupné z: <https://doi.org/10.1021/acsmaterialsau.4c00137>.

SCOLLO, F., KULIG, W., NICITA, G., LUDWIG, A., RICARDO, J. C., ZITO, V., KAPUSTA, P., VATTULAINEN, I., CEBECAUER, M., GABIUS, H. J., KALTNER, H., MACCARRONE, G., HOF, M. Unraveling the GM1 Specificity of Galectin-1 Binding to Lipid Membranes. *ACS Bio & Med Chem Au*. 2025, . ISSN 2694-2437. E-ISSN 2694-2437. Dostupné z: <https://doi.org/10.1021/acsbiochemau.5c00040>

SPESYVYI, A., CEBECAUER, M., ŽABKA, J., OLŽYŇSKA, A., MALEČKOVÁ, M., JOHANOVSKÁ, Z., POLÁŠEK, M., CHARVAT, A., ABEL, B. Separation and Detection of Charged Unilamellar Vesicles in Vacuum by a Frequency-Controlled Quadrupole Mass Sensor. *Analytical Chemistry*. 2025, **97**(17), 9131-9138. ISSN 0003-2700. E-ISSN 1520-6882. Dostupné z: <https://doi.org/10.1021/acs.analchem.4c05730>.

SVOBODOVÁ, B., ŠŤASTNÝ, D., BLOM, H., MIKHALYOV, I., GRETSKAYA, N., BALLEKOVÁ, A., SEZGIN, E., HOF, M., ŠACHL, R. Revised Diffusion Law Permits Quantitative Nanoscale Characterization of Membrane Organization. *Analytical Chemistry*. 2025, . ISSN 0003-2700. E-ISSN 1520-6882. Dostupné z: <https://doi.org/10.1021/acs.analchem.5c00021>

WLOCH, A., SENGUPTA, P., SZULC, N., KRÁL, T., PAWLAK, A., HENKLEWSKA, M., PRUCHNIK, H., SÝKORA, J., HOF, M., GLADKOWSKI, W. Biophysical and molecular interactions of enantiomeric piperonal-derived trans β -aryl- δ -iodo- γ -lactones with cancer cell membranes, protein and DNA: Implications for anticancer activity. *International Journal of Biological Macromolecules*. 2025, **303**(APR 2025), 140476. ISSN 0141-8130. E-ISSN 1879-0003. Dostupné z: <https://doi.org/10.1016/j.ijbiomac.2025.140476>.

CHIECHIO, R. M., LEONARDI, A.A., PUNTORIERO, F., PICCA, R. A., IRRERA, A., SCOLLO, F., REITANO, R., CONTINO, A., PRIOLO, F., MACCARRONE, G., MUSUMECI, P. Ultrasensitive Detection and Wide Dynamic Range Pyrene Quantification Based on Luminescence Restoration of β -Cyclodextrin-Functionalized Silicon Nanowires. *ACS Applied Nano Materials*. 2024, **7**(19), 22436-22443. ISSN 2574-0970. E-ISSN 2574-0970. Dostupné z: <https://doi.org/10.1021/acsanm.3c06151>.

JOHANOVSKÁ, Z. Feeling a nanoworld with optical tweezers: Hands on training at IUPAB 2024. *Biophysics and Physicobiology*. 2024, **21**(SI 2), e212003. ISSN 2189-4779. E-ISSN 2189-4779. Dostupné z: <https://doi.org/10.2142/biophysico.bppb-v21.e2003>

KOROLAINEN, H., OLŽYŇSKA, A., PAJERSKI, W., CHYTROSZ-WROBEL, P., VATTULAINEN, I., KULIG, W., CWIKLIK, L. Assessing vitamin E acetate as a proxy for E-cigarette additives in a realistic pulmonary surfactant model. *Scientific Reports*. 2024, **14**(1), 23805. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-024-75301-8>.

LOLICATO, F., STERINGER, J. P., SALEPPICO, R., BEYER, D., FERNANDEZ-SOBABERAS, J., UNGER, S., KLEIN, S., RIEGEROVÁ, P., WEGEHINGEL, S., MÜLLER, H.-M., SCHMITT, X. J., KAPTAN, S., FREUND, C., HOF, M., ŠACHL, R., CHLANDA, P., VATTULAINEN, I., NICKEL, W. Disulfide bridge-dependent dimerization triggers FGF2 membrane translocation into the extracellular space. *eLife*. 2024, **12**(JAN 2024), RP88579. ISSN 2050-084X. E-ISSN 2050-084X. Dostupné z: <https://doi.org/10.7554/eLife.88579>.

MELČÁK, M., ŠEBESTA, F., HEYDA, J., GRAY, H. B., ZÁLIŠ, S., VLČEK, A. Tryptophan to Tryptophan Hole Hopping in an Azurin Construct. *Journal of Physical Chemistry B*. 2024, **128**(1), 96-108. ISSN 1520-6106. E-ISSN 1520-5207. Dostupné z: <https://doi.org/10.1021/acs.jpcc.3c06568>.

MISHRA, V., MANTEL, A., KAPUSTA, P., PRADO-ROLLER, A., SHIOZAWA, H. Highly Luminescent TCNQ in Melamine. *ACS applied optical materials*. 2024, **2**(6), 1128-1135. E-ISSN 2771-9855. Dostupné z: <https://doi.org/10.1021/acsaom.4c00110>.

MYSTEK, P., SINGH, V., HORVÁTH, M., HONZEJKOVÁ, K., RIEGEROVÁ, P., EVCI, H., HOF, M., OBŠIL, T., ŠACHL, R. The minimal membrane requirements for BAX-induced pore opening upon exposure to oxidative stress. *Biophysical Journal*. 2024, **123**(20), 3519-3532. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2024.08.017>.

PAUL, J., JACOB, J., PANDEY, A. K., VAKA, M., SAMYKANO, M., KADIRGAMA, K., RAHIM, N. A., SELVARAJ, J. Meta data analysis on building thermal management using phase change materials. *Journal of Energy Storage*. 2024, **76**(JAN 2024), 109760. ISSN 2352-152X. E-ISSN 2352-1538. Dostupné z: <https://doi.org/10.1016/j.est.2023.109760>.

RIEGEROVÁ, P., HORVÁTH, M., ŠEBESTA, F., SÝKORA, J., ŠULC, M., VLČEK, A. Single-step purification and characterization of *Pseudomonas aeruginosa* azurin. *Protein Expression and Purification*. 2024, **224**(AUG 2024), 106566. ISSN 1046-5928. E-ISSN 1096-0279. Dostupné z: <https://doi.org/10.1016/j.pep.2024.106566>.

SAIJA, M. C., VAZDAR, K., PAJERSKI, W., OLŽYŇSKA, A., DAULL, P., GARRIGUES, J., CWIKLIK, L. Comparative Study of Latanoprost Drug Delivery Systems for Glaucoma Treatment and Their Interaction with the Tear Film Lipid Layer Models. *Molecular Pharmaceutics*. 2024, **21**(1), 126-136. ISSN 1543-8384. E-ISSN 1543-8392. Dostupné z: <https://doi.org/10.1021/acs.molpharmaceut.3c00635>.

SAIJA, M. C., MELCROVÁ, A., PAJERSKI, W., SCHACHTER, I., JAVANAINEN, M., CEBECAUER, M., CWIKLIK, L. Palmitoylation modifies transmembrane adaptor protein PAG for ordered lipid environment: A molecular dynamics simulation study. *Biophysical Chemistry*. 2024, **304**(JAN 2024), 107124. ISSN 0301-4622. E-ISSN 1873-4200. Dostupné z: <https://doi.org/10.1016/j.bpc.2023.107124>.

SCOLLO, F., TEMPRA, C., EVCI, H., RIOPEDRE FERNÁNDEZ, M., OLŽYŇSKA, A., JAVANAINEN, M., UDAY, A., CEBECAUER, M., CWIKLIK, L., MARTINEZ-SEARA, H., JUNGWIRTH, P., JURKIEWICZ, P., HOF, M. Can calmodulin bind to lipids of the cytosolic leaflet of plasma membranes? *Open Biology*. 2024, **14**(9), 240067. ISSN 2046-2441. E-ISSN 2046-2441. Dostupné z: <https://doi.org/10.1098/rsob.240067>.

THAKUR, G. C. N., UDAY, A., CEBECAUER, M., ROOS, W. H., CWIKLIK, L., HOF, M., JURKIEWICZ, P., MELCROVÁ, A. Charge of a transmembrane peptide alters its interaction with lipid membranes. *Colloids and Surfaces B-Biointerfaces*. 2024, **235**(MAR 2024), 113765. ISSN 0927-7765. E-ISSN 1873-4367. Dostupné z: <https://doi.org/10.1016/j.colsurfb.2024.113765>.

TROJÁNEK, A., SAMEC, Z., FIEDLER, J., MAREČEK, V. Mechanism and rate of anomalous extraction of chloride salts from water to 1,2-dichloroethane. *Electrochimica acta*. 2024, **498**(SEP 2024), 144642. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2024.144642>.

VAN OS, W. L., WIELAERT, L., ALTER, C., DAVIDOVIĆ, D., ŠACHL, R., KOCK, T., GONZALEZ, U. U., ARIAS-ALPIZAR, G., VIGARIO, F. L., KNOL, R. A., KUSTER, R., ROMEIJN, S., LOPEZ MORA, N. F., DETAMPEL, P., HOF, M., HUWYLER, J., KROS, A. Lipid conjugate dissociation analysis improves the in vivo understanding of lipid-based nanomedicine. *Journal of Controlled Release*. 2024, **371**(JUL 2024), 85-100. ISSN 0168-3659. E-ISSN 1873-4995. Dostupné z: <https://doi.org/10.1016/j.jconrel.2024.05.034>.

VARGHESE, B., GONZALEZ-NAVARRO, J. A., GUERRA, V. L. P., FAIZULINA, M., ARTEMIEVA, D., CHUM, T., RAMAKRISHNA, T. R. B., CEBECAUER, M., KOVAŘÍČEK, P. Cell surface morphology mimicking nano-bio platform for immune cell stimulation. *iScience*. 2024, **27**(11), 111033. E-ISSN 2589-0042. Dostupné z: <https://doi.org/10.1016/j.isci.2024.111033>.

WEBER, F., AXMANN, M., SEZGIN, E., AMARO, M. M., SYCH, T., HOCHREINER, A., HOF, M., SCHÜTZ, G. J., STANGL, H., PLOCHBERGER, B. "Head-to-Toe" Lipid Properties Govern the Binding and Cargo Transfer of High-Density Lipoprotein. *Membranes*. 2024, **14**(12), 261. E-ISSN 2077-0375. Dostupné z: <https://doi.org/10.3390/membranes14120261>.

DAVIDOVIĆ, D., KUKULKA, M., SARMENTO, M. J., MIKHALYOV, I., GRETSKAYA, N., CHMELOVÁ, B., RICARDO, J. C., HOF, M., CWIKLIK, L., ŠACHL, R. Which Moiety Drives Gangliosides to Form Nanodomains? *Journal of Physical Chemistry Letters*. 2023, **14**(25), 5791-5797. ISSN 1948-7185. Dostupné z: <https://doi.org/10.1021/acs.jpcllett.3c00761>.

DUDEK, A., STRUGAŁA-DANAK, P., KRAL, T., HOF, M., PRUCHNIK, H. An analysis of interactions between three structurally diverse anthocyanidins, as well as their glucosides, and model biological membranes, albumin, and plasmid DNA. *Scientific Reports*. 2023, **13**(1), 12883. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-023-39470-2>.

CHMELOVÁ, B., DAVIDOVIĆ, D., ŠACHL, R. Interleaflet organization of membrane nanodomains: What can(not) be resolved by FRET? *Biophysical Journal*. 2023, **122**(11), 2053-2067. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2022.11.014>.

LANGMAIER, J., SKOPALOVÁ, J., ZAJACOVÁ CECHOVÁ, M., KAHÁNKOVÁ, T., JERGA, R., BARTÁK, P., SAMEC, Z., NAVRÁTIL, T. Ion transfer voltammetric and LC/MS investigations of the oxidative degradation process of fentanyl and some of its structural analogs. *Electrochimica acta*. 2023, **441**(FEB 2023), 141848. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2023.141848>.

LIEKKINEN, J., OLŽYŇSKA, A., CWIKLIK, L., DE LA SERNA, J. B., VATTULAINEN, I., JAVANAINEN, M. Surfactant Proteins SP-B and SP-C in Pulmonary Surfactant Monolayers: Physical Properties Controlled by Specific Protein-Lipid Interactions. *Langmuir : the ACS journal of surfaces and colloids*. 2023, **39**(12), 4338-4350. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.2c03349>.

POKORNÁ, Š., KHERSONSKY, O., LIPSH-SOKOLIK, R., GOLDENZWEIG, A., NIELSEN, R., ASHANI, Y., PELEG, Y., UNGER, T., ALBECK, S., DYM, O., TIROSH, A., TARAYRA, R., HOCQUEMILLER, M., LAUFER, R., BEN-DOR, S., SILMAN, I., SUSSMAN, J. L., FLEISHMAN, S. J., FUTERMAN, A. H. Design of a stable human acid- β -glucosidase: towards improved Gaucher disease therapy and mutation classification. *FEBS Journal*. 2023, **290**(13), 3383-3399. ISSN 1742-464X. E-ISSN 1742-4658. Dostupné z: <https://doi.org/10.1111/febs.16758>.

RIEDLOVÁ, K., SAIJA, M. C., OLŽYŇSKA, A., JURKIEWICZ, P., DAULL, P., GARRIGUE, J.-S., CWIKLIK, L. Influence of BAKs on tear film lipid layer: In vitro and in silico models. *European Journal of Pharmaceutics and Biopharmaceutics*. 2023, **186**(MAY 2023), 65-73. ISSN 0939-6411. E-ISSN 1873-3441. Dostupné z: <https://doi.org/10.1016/j.ejpb.2023.03.007>.

RIEDLOVÁ, K., SAIJA, M. C., OLŽYŇSKA, A., VAZDAR, K., DAULL, P., GARRIGUES, J., CWIKLIK, L. Latanoprost incorporates in the tear film lipid layer: An experimental and computational model study. *International Journal of Pharmaceutics*. 2023, **645**(OCT 2023), 123367. ISSN 0378-5173. E-ISSN 1873-3476. Dostupné z: <https://doi.org/10.1016/j.ijpharm.2023.123367>.

SINGH, V., MACHAROVÁ, S., RIEGEROVÁ, P., STERINGER, J. P., MUELLER, H., LOLICATO, F., NICKEL, W., HOF, M., ŠACHL, R. Determining the Functional Oligomeric State of Membrane- Associated Protein Oligomers Forming Membrane Pores on Giant Lipid Vesicles. *Analytical Chemistry*. 2023, **95**(23), 8807-8815. ISSN 0003-2700. E-ISSN 1520-6882. Dostupné z: <https://doi.org/10.1021/acs.analchem.2c05692>.

THAKUR, G. C. N., UDAY, A., JURKIEWICZ, P. FRET-GP A Local Measure of the Impact of Transmembrane Peptide on Lipids. *Langmuir : the ACS journal of surfaces and colloids*. 2023, **39**(50), 18390-18402. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.3c02505>.

TROJÁNEK, A., MAREČEK, V., LANGMAIER, J., SAMEC, Z. Effect of water solubility in organic solvents on the standard Gibbs energy of ion transfer across a water/organic solvent interface. *Electrochimica acta*. 2023, **449**(MAY 2023), 142222. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2023.142222>.

TROJÁNEK, A., SAMEC, Z., MAREČEK, V. Electrochemical detection and evaluation of the anomalous chloride extraction from water to 1,2-dichloroethane under the non-equilibrium conditions. *Electrochimica acta*. 2023, **437**(JAN 2023), 141510. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2022.141510>.

TROJÁNEK, A., MAREČEK, V., FIEDLER, J., SAMEC, Z. Origin of the correlation between the standard Gibbs energy of ion transfer and the solubility of water in organic solvents. *Electrochimica acta*. 2023, **465**(OCT 2023), 142966. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2023.142966>.

UZHYTCHAK, M., SMOLKOVÁ, B., FRTÚS, A., STUPAKOV, A., LUNOVA, M., SCOLLO, F., HOF, M., JURKIEWICZ, P., SULLIVAN, G.J., DEJNEKA, A., LUNOV, O. Sensitivity of endogenous autofluorescence in HeLa cells to the application of external magnetic fields. *Scientific Reports*. 2023, **13**(July), 10818. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-023-38015-x>.

VAKA, M., KHALID, M., PAUL, J. A review of different models, mechanisms, theories and parameters in tuning the specific heat capacity of nano-phase change materials. *Journal of Energy Storage*. 2023, **72**(Part E), 108678. ISSN 2352-152X. E-ISSN 2352-1538. Dostupné z: <https://doi.org/10.1016/j.est.2023.108678>.

VAKA, M., WALVEKAR, R. An experimental study on thermal efficiency of hybrid GO/MWCNTs nanoparticles suspended in a binary mixture of ethylene glycol and water. *Materials Today: Proceedings*. 2023, **73**(2), 354-360. E-ISSN 2214-7853. Dostupné z: <https://doi.org/10.1016/j.matpr.2022.11.127>.

VARADE, V., HAIDER, G., SLOBODENIUK, A., KORYTÁR, R., NOVOTNÝ, T., HOLÝ, V., MIKŠÁTKO, J., PLŠEK, J., SÝKORA, J., BASOVÁ, M., ŽÁČEK, M., HOF, M., KALBÁČ, M., VEJPRAVOVÁ, J. Chiral Light Emission from a Hybrid Magnetic Molecule-Monolayer Transition Metal Dichalcogenide Heterostructure. *ACS Nano*. 2023, **17**(3), 2170-2181. ISSN 1936-0851. E-ISSN 1936-086X. Dostupné z: <https://doi.org/10.1021/acsnano.2c08320>.

VARADE, V., HAIDER, G., PIRKER, L., PANDA, J., SÝKORA, J., FRANK, O., KALBÁČ, M., VEJPRAVOVÁ, J. Sulfur isotope engineering of exciton and lattice dynamics in MoS2 monolayers. *2D Materials*. 2023, **10**(2), 025024. ISSN 2053-1583. E-ISSN 2053-1583. Dostupné z: <https://doi.org/10.1088/2053-1583/acc4d8>.

VAZDAR, K., TEMPRA, C., OLŽYŇSKA, A., BIRIUKOV, D., CWIKLIK, L., VAZDAR, M. Stealthy Player in Lipid Experiments? EDTA Binding to Phosphatidylcholine Membranes Probed by Simulations and Monolayer Experiments. *Journal of Physical Chemistry B*. 2023, **127**(24), 5462-5469. ISSN 1520-6106. E-ISSN 1520-5207. Dostupné z: <https://doi.org/10.1021/acs.jpccb.3c03207>.

VENTURA, A. E., POKORNÁ, Š., HUHN, N., SANTOS, T. C. B., PRIETO, M., FUTERMAN, A. H., SILVA, L. C. Cell lipid droplet heterogeneity and altered biophysical properties induced by cell stress and metabolic imbalance. *Biochimica Et Biophysica Acta-Molecular and Cell Biology of Lipids*. 2023, **1868**(9), 159347. ISSN 1388-1981. E-ISSN 1879-2618. Dostupné z: <https://doi.org/10.1016/j.bbalip.2023.159347>.

WONG, W. P., WALVEKAR, R., VAKA, M., KHALID, M., MUBARAK, N. M. A Review on CSP and CPVT Technologies: Energy, Economic Analysis and Recycling towards Circular Economy. *ECS Journal of Solid State Science and Technology*. 2023, **12**(3), 031012. ISSN 2162-8769. E-ISSN 2162-8777. Dostupné z: <https://doi.org/10.1149/2162-8777/acc4e6> .

WONG, W. P., WALVEKAR, R., VAKA, M., KHALID, M. Hybrid MWCNT/TiO₂ nanoparticles based high-temperature quinary nitrate salt mixture for thermal energy storage applications. *Journal of Energy Storage*. 2023, **73**(PART A), 108792. ISSN 2352-152X. E-ISSN 2352-1538. Dostupné z: <https://doi.org/10.1016/j.est.2023.108792> .

WONG, W. P., WALVEKAR, R., VAKA, M., KHALID, M. Optimisation and techno-economic assessment of parabolic trough collector system in Malaysia, China, and the United States. *International Journal of Ambient Energy*. 2023, **44**(1), 2398-2421. ISSN 0143-0750. Dostupné z: <https://doi.org/10.1080/01430750.2023.2237030>.

ABHINAV, A., JURKIEWICZ, P., HOF, M., ALLOLIO, C., ŠÝKORA, J. Modulation of Anionic Lipid Bilayers by Specific Interplay of Protons and Calcium Ions. *Biomolecules*. 2022, **12**(12), 1894. ISSN 2218-273X. E-ISSN 2218-273X. Dostupné z: <https://doi.org/10.3390/biom12121894> .

CEBECAUEROVÁ, D., MALCOVÁ, H., KOUKOLSKÁ, V., KVÍČALOVÁ, Z., SOUČEK, O., WAGENKNECHT, L., BRONSKÝ, J., ŠUMNÍK, Z., KYNČL, M., CEBECAUER, M., HORVÁTH, R. Two phenotypes of chronic recurrent multifocal osteomyelitis with different patterns of bone involvement. *Pediatric Rheumatology Online Journal*. 2022, **20**(1), 108. ISSN 1546-0096. E-ISSN 1546-0096. Dostupné z: <https://doi.org/10.1186/s12969-022-00772-w>.

FRANKE, C., CHUM, T., KVÍČALOVÁ, Z., GLATZOVÁ, D., GENTSCH, G. J., RODRIGUEZ, Á., HELMERICH, D. A., HERDLY, L., MAVILA, H., FRANK, O., BRDIČKA, T., VAN DE LINDE, S., CEBECAUER, M. Approach to map nanotopography of cell surface receptors. *Communications Biology*. 2022, **5**(1), 218. E-ISSN 2399-3642. Dostupné z: <https://doi.org/10.1038/s42003-022-03152-y>.

LOLICATO, F., SALEPPICO, R., GRIFFO, A., MEYER, A., SCOLLO, F., POKRANDT, B., MÜLLER, H.-M., EWERS, H., HÄHL, H., FLEURY, J.-B., SEEMANN, R., HOF, M., BRÜGGER, B., JACOBS, K., VATTUALINEN, I., NICKEL, W. Cholesterol promotes clustering of PI(4,5)P₂ driving unconventional secretion of FGF2. *Journal of Cell Biology*. 2022, **221**(11), e202106123. ISSN 0021-9525. E-ISSN 1540-8140. Dostupné z: <https://doi.org/10.1083/jcb.202106123>.

MAREČEK, V. A polarizable reference electrode. *Electrochemistry Communications*. 2022, **141**(AUG 2022), 107354. ISSN 1388-2481. E-ISSN 1873-1902. Dostupné z: <https://doi.org/10.1016/j.elecom.2022.107354>.

MONDAL, S., SCHWEDERSKI, B., ZÁLIŠ, S., KAIM, W. Mixed Valency vs Radical Bridge Formulation in Symmetrically and Asymmetrically Ligated Diruthenium Complexes. *European Journal of Inorganic Chemistry*. 2022, **2022**(26), e202200319. ISSN 1434-1948. E-ISSN 1099-0682. Dostupné z: <https://doi.org/10.1002/ejic.202200319>.

NGUYEN, M. T. H., BIRIUKOV, D., TEMPRA, C., BAXOVÁ, K., MARTINEZ-SEARA, H., EVCI, H., SINGH, V., ŠACHL, R., HOF, M., JUNGWIRTH, P., JAVANAINEN, M., VAZDAR, M. Ionic Strength and Solution Composition Dictate the Adsorption of Cell-Penetrating Peptides onto Phosphatidylcholine Membranes. *Langmuir : the ACS journal of surfaces and colloids*. 2022, **38**(37), 11284-11295. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.2c01435>.

PIŽL, M., HUNTER, B. M., SAZANOVICH, I., TOWRIE, M., GRAY, H. B., ZÁLIŠ, S., VLČEK, A. Excitation-Wavelength-Dependent Photophysics of d8d8 Di-isocyanide Complexes. *Inorganic Chemistry*. 2022, **61**(6), 2745-2759. ISSN 0020-1669. E-ISSN 1520-510X. Dostupné z: <https://doi.org/10.1021/acs.inorgchem.1c02645> .

POKORNÁ, Š., VENTURA, A. E., SANTOS, T. C. B., HOF, M., PRIETO, M., FUTERMAN, A. H., SILVA, L. C. Laurdan in live cell imaging: Effect of acquisition settings, cell culture conditions and data analysis on generalized polarization measurements. *Journal of Photochemistry and Photobiology. B - Biology Section*. 2022, **228**(MAR 2022), 112404. ISSN 1011-1344. E-ISSN 1873-2682. Dostupné z: <https://doi.org/10.1016/j.jphotobiol.2022.112404>

RAGALLER, F., ANDRONICO, L., SÝKORA, J., KULIG, W., ROG, T., UREM, Y. B., ABHINAV, A., DANYLCHUK, D. I., HOF, M., KLYMCHENKO, A., AMARO, M. M., VATTULAINEN, I., SEZGIN, E. Dissecting the mechanisms of environment sensitivity of smart probes for quantitative assessment of membrane properties. *Open Biology*. 2022, **12**(9), 220175. ISSN 2046-2441. E-ISSN 2046-2441. Dostupné z: <https://doi.org/10.1098/rsob.220175>.

SCHACHTER, I., PAANANEN, R. O., FÁBIÁN, B., JURKIEWICZ, P., JAVANAINEN, M. The Two Faces of the Liquid Ordered Phase. *Journal of Physical Chemistry Letters*. 2022, **13**(5), 1307-1313. ISSN 1948-7185. Dostupné z: <https://doi.org/10.1021/acs.jpclett.1c03712>.

ŠRUT, A., MAI, S., SAZANOVICH, I., HEYDA, J., VLČEK, A., GONZÁLEZ, L., ZÁLIŠ, S. Nonadiabatic excited-state dynamics of ReCl(CO)₃(bpy) in two different solvents. *Physical Chemistry Chemical Physics*. 2022, **24**(42), 25864-25877. ISSN 1463-9076. E-ISSN 1463-9084. Dostupné z: <https://doi.org/10.1039/d2cp02981b>.

TEMPRA, C., SCOLLO, F., PANNUZZO, M., LOLICATO, F., LA ROSA, C. A unifying framework for amyloid-mediated membrane damage: The lipid-chaperone hypothesis. *Biochimica Et Biophysica Acta-Proteins and Proteomics*. 2022, **1870**(4), 140767. ISSN 1570-9639. E-ISSN 1878-1454. Dostupné z: <https://doi.org/10.1016/j.bbapap.2022.140767>.

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Bovine Serum Albumin Adsorption at a Polarized Water/1,2-Dichloroethane Interface with No Effect on the Ion Transfer Kinetics. *ChemElectroChem*. 2022, **9**(13), e202200409. ISSN 2196-0216. E-ISSN 2196-0216. Dostupné z: <https://doi.org/10.1002/celec.202200409>.

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Capacitance of the interface between two immiscible electrolyte solutions - A controversial issue. *Electrochimica acta*. 2022, **403**(JAN 2022), 139720. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2021.139720>.

CARREIRA, A. C., POKORNÁ, Š., VENTURA, A. E., WALKER, M. W., FUTERMAN, A. H., LLOYD-EVANS, E., DE ALMEIDA, R. F.M., SILVA, L. C. Biophysical impact of sphingosine and other abnormal lipid accumulation in Niemann-Pick disease type C cell models. *Biochimica Et Biophysica Acta-Molecular and Cell Biology of Lipids*. 2021, **1866**(8), 158944. ISSN 1388-1981. E-ISSN 1879-2618. Dostupné z: <https://doi.org/10.1016/j.bbalip.2021.158944>.

CEBECAUER, M. A Tribute to Professor Katharina Gaus. *Frontiers in Bioinformatics*. 2021, (DEC), 801115. E-ISSN 2673-7647. Dostupné z: <https://doi.org/10.3389/fbinf.2021.801115>

CEBECAUER, M. Role of Lipids in Morphogenesis of T-Cell Microvilli. *Frontiers in Immunology*. 2021, **12**(MAR 2021), 613591. ISSN 1664-3224. E-ISSN 1664-3224. Dostupné z: <https://doi.org/10.3389/fimmu.2021.613591>.

EHRET, F., FILIPPOU, V., BLICKLE, S., BUBRIN, M., ZÁLIŠ, S., KAIM, W. Structural and Oxidation State Alternatives in Platinum and Palladium Complexes of a Redox-Active Amidinato Ligand. *Chemistry - A European Journal*. 2021, **27**(10), 3374-3381. ISSN 0947-6539. E-ISSN 1521-3765. Dostupné z: <https://doi.org/10.1002/chem.202003636>.

FILANDROVÁ, R., VALIŠ, K., ČERNÝ, J., CHMELÍK, J., SLAVATA, L., FIALA, J., ROSŮLEK, M., KAVAN, D., MAN, P., CHUM, T., CEBECAUER, M., FABRIS, D., NOVÁK, P. Motif orientation matters: Structural characterization of TEAD1 recognition of genomic DNA. *Structure*. 2021, **29**(4), 345-356. ISSN 0969-2126. E-ISSN 1878-4186. Dostupné z: <https://doi.org/10.1016/j.str.2020.11.018>.

GLATZOVÁ, D., MAVILA, H., SAIJA, M. C., CHUM, T., CWIKLIK, L., BRDIČKA, T., CEBECAUER, M. The role of prolines and glycine in the transmembrane domain of LAT. *FEBS Journal*. 2021, **288**(13), 4039-4052. ISSN 1742-464X. E-ISSN 1742-4658. Dostupné z: <https://doi.org/10.1111/febs.15713>.

HAIDER, G., SAMPATHKUMAR, K., VERHAGEN, T., NÁDVORNÍK, L., FARJANA, J. S., VALEŠ, V., SÝKORA, J., KAPUSTA, P., NĚMEC, P., HOF, M., FRANK, O., CHEN, Y. F., VEJPRAVOVÁ, J., KALBÁČ, M. Superradiant Emission from Coherent Excitons in van Der Waals Heterostructures. *Advanced Functional Materials*. 2021, **2021**(MAY 2021), 2102196. ISSN 1616-301X. E-ISSN 1616-3028. Dostupné z: <https://doi.org/10.1002/adfm.202102196>.

CHATTERJEE, M., MONDAL, S., HAZARI, A. S., ZÁLIŠ, S., KAIM, W., LAHIRI, G. K. Variable electronic structure and spin distribution in bis(2,2'-bipyridine)-metal complexes (M = Ru or Os) of 4,5-dioxido- And 4,5-diimido-pyrene. Dalton Transactions. 2021, **50**(12), 4191-4201. ISSN 1477-9226. E-ISSN 1477-9234. Dostupné z: <https://doi.org/10.1039/d1dt00282a>.

KOUKALOVÁ, T., KOVAŘÍČEK, P., BOJAROVÁ, P., GUERRA, V. L. P., VRKOSLAV, V., NAVARA, L., JIRKA, I., CEBECAUER, M., KŘEN, V., KALBÁČ, M. Reversible lectin binding to glycan-functionalized graphene. International Journal of Molecular Sciences. 2021, **22**(13), 6661. ISSN 1661-6596. E-ISSN 1422-0067. Dostupné z: <https://doi.org/10.3390/ijms22136661>.

LANGMAIER, J., MAIER, V., SAMEC, Z. Voltammetry of Several Natural and Synthetic Opioids at a Polarized Ionic Liquid Membrane. ChemElectroChem. 2021, **8**(13), 2519-2525. ISSN 2196-0216. E-ISSN 2196-0216. Dostupné z: <https://doi.org/10.1002/celec.202100701>.

MARCHAND, R., ŠACHL, R., KALBÁČ, M., HOF, M., TROMP, R., AMARO, M. M., VAN DER MOLEN, M., JUFFMANN, T. Optical Near-Field Electron Microscopy. Physical Review Applied. 2021, **16**(1), 014008. ISSN 2331-7019. E-ISSN 2331-7019. Dostupné z: <https://doi.org/10.1103/PhysRevApplied.16.014008>.

MIL-HOMENS, D., MARTINS, M., BARBOSA, J., SERAFIM, G., SARMENTO, M. J., PIRES, R. F., RODRIGUES, V., BONIFÁCIO, V. D. B., PINTO, S. N. Carbapenem-Resistant Klebsiella pneumoniae Clinical Isolates: In Vivo Virulence Assessment in Galleria mellonella and Potential Therapeutics by Polycationic Oligoethyleneimine. Antibiotics (Basel). 2021, **10**(1), 56. ISSN 2079-6382. E-ISSN 2079-6382. Dostupné z: <https://doi.org/10.3390/antibiotics10010056>.

POSPÍŠIL, P., CWIKLIK, L., SÝKORA, J., HOF, M., GREETHAM, G. M., TOWRIE, M., VLČEK, A. Solvent-Dependent Excited-State Evolution of Prodan Dyes. Journal of Physical Chemistry B. 2021, **125**(51), 13858-13867. ISSN 1520-6106. E-ISSN 1520-5207. Dostupné z: <https://doi.org/10.1021/acs.jpcc.1c09030>.

RIEGEROVÁ, P., BREJCHA, J., BEZDĚKOVÁ, D., CHUM, T., MAŠÍNOVÁ, E., ČERMÁKOVÁ, N., OVSEPIAN, S. V., CEBECAUER, M., ŠTEFL, M. Expression and Localization of AβPP in SH-SY5Y Cells Depends on Differentiation State. Journal of Alzheimer's Disease. 2021, **82**(2), 485-491. ISSN 1387-2877. E-ISSN 1875-8908. Dostupné z: <https://doi.org/10.3233/JAD-201409>.

SARMENTO, M. J., OWEN, M. C., RICARDO, J. C., CHMELOVÁ, B., DAVIDOVIĆ, D., MIKHALYOV, I., GRETSKAYA, N., HOF, M., AMARO, M. M., VÁCHA, R., ŠACHL, R. The impact of the glycan headgroup on the nanoscopic segregation of gangliosides. Biophysical Journal. 2021, **120**(24), 5530-5543. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2021.11.017>.

SCOLLO, F., EVCI, H., AMARO, M. M., JURKIEWICZ, P., SÝKORA, J., HOF, M. What Does Time-Dependent Fluorescence Shift (TDFS) in Biomembranes (and Proteins) Report on? Frontiers in Chemistry. 2021, **9**(OCT 2021), 738350. ISSN 2296-2646. E-ISSN 2296-2646. Dostupné z: <https://doi.org/10.3389/fchem.2021.738350>.

SHI, S., QUARTA, N., ZHANG, H., LU, Z., HOF, M., ŠACHL, R., LIU, R., HOERNKE, M. Hidden complexity in membrane permeabilization behavior of antimicrobial polycations. Physical Chemistry Chemical Physics. 2021, **23**(2), 1475-1488. ISSN 1463-9076. E-ISSN 1463-9084. Dostupné z: <https://doi.org/10.1039/D0CP05651K>.

SCHERER, T. M., HARTENBACH, I., LISSNER, F., SCHWEDERSKI, B., HÜBNER, R., FIEDLER, J., ZÁLIŠ, S., SARKAR, B., KAIM, W. Analysis of Multiple Redox Sites in Complexes [M(C5Me5)(Q)(NO)]_n, M=Ru or Os, Q=o-Quinones. Zeitschrift für anorganische und allgemeine Chemie. 2021, **647**(8), 867-875. ISSN 0044-2313. E-ISSN 1521-3749. Dostupné z: <https://doi.org/10.1002/zaac.202000420>.

SILVER, B. R. Atomic Absorption Spectroscopy Reveals Anomalous Transfer of Heavy Metal across a Water/1,2-DCE Interface. *Portugaliae Electrochimica Acta*. 2021, **39**(6), 415-420. ISSN 0872-1904. E-ISSN 0872-1904. Dostupné z: <https://doi.org/10.4152/pea.2021390603>.

SMOLKOVÁ, B., MACCULLOCH, T., ROCKWOOD, T.F., LIU, M., HENRY, S.J.W., FRTÚS, A., UZHYTCHAK, M., LUNOVA, M., HOF, M., JURKIEWICZ, P., DEJNEKA, A., STEPHANOPOULOS, N., LUNOV, O. Protein corona inhibits endosomal escape of functionalized DNA nanostructures in living cells. *ACS Applied Materials and Interfaces*. 2021, **13**(39), 46375-46390. ISSN 1944-8244. E-ISSN 1944-8252. Dostupné z: <https://doi.org/10.1021/acsami.1c14401>.

STRUGATA, P., URBANIAK, A., KURYŚ, P., VLOCH, A., UGORSKI, M., HOF, M., GABRIELSKA, J. Antitumor and antioxidant activities of purple potato ethanolic extract and its interaction with liposomes, albumin and plasmid DNA. *Food & Function*. 2021, **12**(3), 1271-1290. ISSN 2042-6496. E-ISSN 2042-650X. Dostupné z: <https://doi.org/10.1039/D0FO01667E>.

TAYLOR, J. O., PIŽL, M., KLOZ, M., REBARZ, M., MCCUSKER, C. E., MCCUSKER, J. K., ZÁLIŠ, S., HARTL, F., VLČEK, A. Optical and infrared spectroelectrochemical studies of CN-substituted bipyridyl complexes of ruthenium(II). *Inorganic Chemistry*. 2021, **60**(6), 3514-3523. ISSN 0020-1669. E-ISSN 1520-510X. Dostupné z: <https://doi.org/10.1021/acs.inorgchem.0c03579>.

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Mixed electrolyte effect on the stability of the interface between two immiscible electrolyte solutions. *Electrochimica acta*. 2021, **399**(DEC 2021), 139405. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2021.139405>.

ZÁLIŠ, S., HEYDA, J., ŠEBESTA, F., WINKLER, J. R., GRAY, H. B., VLČEK, A. Photoinduced hole hopping through tryptophans in proteins. *Proceedings of the National Academy of Sciences of the United States of America*. 2021, **118**(11), e2024627118. ISSN 0027-8424. E-ISSN 1091-6490. Dostupné z: <https://doi.org/10.1073/pnas.2024627118>.

AISENBREY, C., AMARO, M. M., POSPÍŠIL, P., HOF, M., BECHINGER, B. Highly synergistic antimicrobial activity of magainin 2 and PGLa peptides is rooted in the formation of supramolecular complexes with lipids. *Scientific Reports*. 2020, **10**(1), 11652. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-020-68416-1>.

BAUER, S., ZÁLIŠ, S., FIEDLER, J., RINGENBERG, M. R., KAIM, W. Oxidation State Assignments in the Organoplatinum One-Electron Redox Series [(N boolean AND N)PtMes(2)](n), n = +, 0, 2-. *European Journal of Inorganic Chemistry*. 2020, **2020**(25), 2435-2443. ISSN 1434-1948. E-ISSN 1099-0682. Dostupné z: <https://doi.org/10.1002/ejic.202000257>.

EFTIMOV, P., OLŽYŇSKA, A., MELCROVÁ, A., GEORGIEV, G. A., DAULL, P., GARRIGUE, J.-S., CWIKLIK, L. Improving Stability of Tear Film Lipid Layer via Concerted Action of Two Drug Molecules: A Biophysical View. *International Journal of Molecular Sciences*. 2020, **21**(24), 9490. ISSN 1661-6596. E-ISSN 1422-0067. Dostupné z: <https://doi.org/10.3390/ijms21249490>.

FRTÚS, A., SMOLKOVÁ, B., UZHYTCHAK, M., LUNOVA, M., JIRSA, M., HOF, M., JURKIEWICZ, P., LOZINSKY, V., WOLFOVÁ, L., PETRENKO, Y., KUBINOVÁ, Š., DEJNEKA, A., LUNOV, O. Hepatic tumor cell morphology plasticity under physical constraints in 3D cultures driven by YAP-mTOR axis. *Pharmaceuticals*. 2020, **13**(12), 1-25, 430. E-ISSN 1424-8247. Dostupné z: <https://doi.org/10.3390/ph13120430>.

GÜIXENS-GALLARDO, P., HUMPOLÍČKOVÁ, J., MICLEA, S. P., POHL, R., KRAUS, T., JURKIEWICZ, P., HOF, M., HOCEK, M. Thiophene-linked tetramethylbodipy-labeled nucleotide for viscosity-sensitive oligonucleotide probes of hybridization and protein-DNA interactions. *Organic & Biomolecular Chemistry*. 2020, **18**(5), 912-919. ISSN 1477-0520. E-ISSN 1477-0539. Dostupné z: <https://doi.org/10.1039/c9ob02634g>.

GURICOVÁ, M., TOBRMAN, T., PIŽL, M., ŽIŽKOVÁ, S., HOSKOVCOVÁ, I., DVOŘÁK, D. Synthesis, characterisation and electrochemical properties of Cr(0) aminocarbene complexes containing condensed heteroaromatic moiety. *Journal of Organometallic Chemistry*. 2020, **905**(JAN 2020), 121023. ISSN 0022-328X. E-ISSN 1872-8561. Dostupné z: <https://doi.org/10.1016/j.jorganchem.2019.121023>.

KAIM, W., DAS, A., FIEDLER, J., ZÁLIŠ, S., SARKAR, B. NO and NO₂ as non-innocent ligands: A comparison. *Coordination Chemistry Reviews*. 2020, **404**(FEB 2020), 213114. ISSN 0010-8545. E-ISSN 1873-3840. Dostupné z: <https://doi.org/10.1016/j.ccr.2019.213114>.

KAKIUCHI, T., SAMEC, Z. An electrochemical viewpoint on the solubility of silver halides in water. *Journal of Solid State Electrochemistry*. 2020, **24**(11-12), 3185-3189. ISSN 1432-8488. E-ISSN 1433-0768. Dostupné z: <https://doi.org/10.1007/s10008-020-04792-y>.

LANGMAIER, J., JOSYPČUK, B., SAMEC, Z. Wall-jet ion sensor based on ion transfer processes at a polarized room-temperature ionic liquid membrane. *Journal of Electroanalytical Chemistry*. 2020, **861**(MAR 2020), 113948. ISSN 1572-6657. E-ISSN 1873-2569. Dostupné z: <https://doi.org/10.1016/j.jelechem.2020.113948>.

LOPEZ MORA, N., BOYLE, A. L., VAN KOLCK, B. J., ROSSEN, A., POKORNÁ, Š., KOUKALOVÁ, A., ŠACHL, R., HOF, M., KROS, A. Controlled Peptide-Mediated Vesicle Fusion Assessed by Simultaneous Dual-Colour Time-Lapsed Fluorescence Microscopy. *Scientific Reports*. 2020, **10**(1), 3087. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-020-59926-z>.

MAREČEK, V., SAMEC, Z. Electrochemical study of the anomalous salt extraction from water to a polar organic solvent. *Journal of Solid State Electrochemistry*. 2020, **24**(9), 2173-2174. ISSN 1432-8488. E-ISSN 1433-0768. Dostupné z: <https://doi.org/10.1007/s10008-020-04656-5>.

NAUMOVA, N., ŠACHL, R. Regulation of cell death by mitochondrial transport systems of calcium and BCL-2 proteins. *Membranes*. 2020, **10**(10), 299. E-ISSN 2077-0375. Dostupné z: <https://doi.org/10.3390/membranes10100299>.

OLŽYŇSKA, A., WIZERT, A., ŠTEFL, M., ISKANDER, D. R., CWIKLIK, L. Mixed polar-nonpolar lipid films as minimalistic models of Tear Film Lipid Layer: A Langmuir trough and fluorescence microscopy study. *Biochimica Et Biophysica Acta-Biomembranes*. 2020, **1862**(9), 183300. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2020.183300>.

OLŽYŇSKA, A., DELCROIX, P., DOLEJSOVA, T., KRZACZEK, K., KORCHOWIEC, B., CZOGALLA, A., CWIKLIK, L. Properties of Lipid Models of Lung Surfactant Containing Cholesterol and Oxidized Lipids: A Mixed Experimental and Computational Study. *Langmuir : the ACS journal of surfaces and colloids*. 2020, **36**(4), 1023-1033. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.9b02469>.

OLŽYŇSKA, A., KULIG, W., MIKKOLAINEN, H., CZERNIAK, T., JURKIEWICZ, P., CWIKLIK, L., ROG, T., HOF, M., JUNGWIRTH, P., VATTULAINEN, I. Tail-Oxidized Cholesterol Enhances Membrane Permeability for Small Solutes. *Langmuir : the ACS journal of surfaces and colloids*. 2020, **36**(35), 10438-10447. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.0c01590>.

ONDIČ, L., VARGA, M., FAIT, J., HRUŠKA, K., JURKA, V., KROMKA, A., MAŇÁK, J., KAPUSTA, P., NOVÁKOVÁ, J. Photonic crystal cavity-enhanced emission from silicon vacancy centers in polycrystalline diamond achieved without postfabrication fine-tuning. *Nanoscale*. 2020, **12**(24), 13055-13063. ISSN 2040-3364. E-ISSN 2040-3372. Dostupné z: <https://doi.org/10.1039/c9nr10580h>.

PAANANEN, R. O., VIITAJA, T., OLŽYŇSKA, A., EKHOLM, F. S., MOILANEN, J., CWIKLIK, L. Interactions of polar lipids with cholesteryl ester multilayers elucidate tear film lipid layer structure. *Ocular Surface*. 2020, **18**(4), 545-553. ISSN 1542-0124. E-ISSN 1937-5913. Dostupné z: <https://doi.org/10.1016/j.jtos.2020.06.001>.

PIŽL, M., PICCHIOTTI, A., REBARZ, M., LENNGREN, N., YINGLIANG, L., ZÁLIŠ, S., KLOZ, M., VLČEK, A. Time-Resolved Femtosecond Stimulated Raman Spectra and DFT Anharmonic Vibrational Analysis of an Electronically Excited Rhenium Photosensitizer. *Journal of Physical Chemistry A*. 2020, **124**(7), 1253-1265. ISSN 1089-5639. E-ISSN 1520-5215. Dostupné z: <https://doi.org/10.1021/acs.jpca.9b10840>.

POSPÍŠIL, P., SÝKORA, J., TAKEMATSU, K., HOF, M., GRAY, H. B., VLČEK, A. Light-Induced Nanosecond Relaxation Dynamics of Rhenium-Labeled *Pseudomonas aeruginosa* Azurins. *Journal of Physical Chemistry B*. 2020, **124**(5), 788-797. ISSN 1520-6106. E-ISSN 1520-5207. Dostupné z: <https://doi.org/10.1021/acs.jpcb.9b10802>.

SARMENTO, M. J., HOF, M., ŠACHL, R. Interleaflet Coupling of Lipid Nanodomains – Insights From in vitro Systems. *Frontiers in Cell and Developmental Biology*. 2020, **8**(APR 2020), 284. ISSN 2296-634X. E-ISSN 2296-634X. Dostupné z: <https://doi.org/10.3389/fcell.2020.00284>.

SARMENTO, M. J., RICARDO, J. C., AMARO, M. M., ŠACHL, R. Organization of gangliosides into membrane nanodomains. *FEBS Letters*. 2020, **594**(22), 3668-3697. ISSN 0014-5793. E-ISSN 1873-3468. Dostupné z: <https://doi.org/10.1002/1873-3468.13871>.

SCIACCA, M. F., LOLICATO, F., TEMPRA, C., SCOLLO, F., SAHOO, B. R., WATSON, M. D., GARCÍA-VIÑUALES, S., MILARDI, D., RAUDINO, A., LEE, J., RAMAMOORTHY, A., LA ROSA, C. Lipid-Chaperone Hypothesis: A Common Molecular Mechanism of Membrane Disruption by Intrinsically Disordered Proteins. *ACS Chemical Neuroscience*. 2020, **11**(24), 4336-4350. ISSN 1948-7193. E-ISSN 1948-7193. Dostupné z: <https://doi.org/10.1021/acscchemneuro.0c00588>.

SCOLLO, F., LA ROSA, C. Amyloidogenic Intrinsically Disordered Proteins: New Insights into Their Self-Assembly and Their Interaction with Membranes. *Life*. 2020, **10**(8), 144. E-ISSN 2075-1729. Dostupné z: <https://doi.org/10.3390/life10080144>.

SCOLLO, F., SEGGIO, M., TORRISI, R. L., BUA, R. O., ZIMBONE, M., CONTINO, A., MACCARRONE, G. New fluorescent-labelled nanoparticles: synthesis, characterization and interactions with cysteine and homocysteine to evaluate their stability in aqueous solution. *Applied Nanoscience*. 2020, **10**(4), 1157-1172. ISSN 2190-5509. E-ISSN 2190-5517. Dostupné z: <https://doi.org/10.1007/s13204-019-01241-9>.

SONDERMANN, C., PIŽL, M., PARETZKI, A., FEIL, C., RINGENBERG, M. R., ZÁLIŠ, S., KAIM, W. Analysis of a Diimine-Organonickel Redox Series. *European Journal of Inorganic Chemistry*. 2020, **2020**(31), 3010-3015. ISSN 1434-1948. E-ISSN 1099-0682. Dostupné z: <https://doi.org/10.1002/ejic.202000455>.

ŠACHL, R., ČUJOVÁ, S., SINGH, V., RIEGEROVÁ, P., KAPUSTA, P., MÜLLER, H.-M., STERINGER, J. P., HOF, M., NICKEL, W. Functional Assay to Correlate Protein Oligomerization States with Membrane Pore Formation. *Analytical Chemistry*. 2020, **92**(22), 14861-14866. ISSN 0003-2700. E-ISSN 1520-6882. Dostupné z: <https://doi.org/10.1021/acs.analchem.0c03276>.

ŠIMKOVÁ, V., FREISLEBENOVÁ, H., NEUHOFFEROVÁ, E., PETRÁKOVÁ, V., AMINI, A., BENSON, V. Coated nanodiamonds interact with tubulin beta-III negative cells of adult brain tissue. *Biointerphases*. 2020, **15**(6), 061009. ISSN 1934-8630. E-ISSN 1559-4106. Dostupné z: <https://doi.org/10.1116/6.0000525>.

ŠTEFL, M., HERBST, K., RUEBSAM, M., BENDA, A., KNOP, M. Single-Color Fluorescence Lifetime Cross-Correlation Spectroscopy In Vivo. *Biophysical Journal*. 2020, **119**(7), 1359-1370. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2020.06.039>.

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Origin of chronoamperometric responses associated with impacts of single electrolyte droplets at a polarized liquid/liquid interface. *Electrochimica acta*. 2020, **354**(SEP 2020), 136653. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2020.136653>.

TROJÁNEK, A., SAMEC, Z., MAREČEK, V. Self-perturbation of the salt partition at the water/1,2-dichloroethane interface. *Electrochimica acta*. 2020, **361**(NOV 2020), 137059. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2020.137059>.

TUERKOVÁ, A., KABELKA, I., KRÁLOVÁ, T., SUKENÍK, L., POKORNÁ, Š., HOF, M., VÁCHA, R. Effect of helical kink in antimicrobial peptides on membrane pore formation. *eLife*. 2020, **9**(FEB 2020), 47946. ISSN 2050-084X. E-ISSN 2050-084X. Dostupné z: <https://doi.org/10.7554/eLife.47946>.

ADÁMKOVÁ, L., KVÍČALOVÁ, Z., ROZBESKÝ, D., KUKAČKA, Z., ADÁMEK, D., CEBECAUER, M., NOVÁK, P. Oligomeric Architecture of Mouse Activating Nkrp1 Receptors on Living Cells. *International Journal of Molecular Sciences*. 2019, **20**(8), 1884. ISSN 1661-6596. E-ISSN 1422-0067. Dostupné z: <https://doi.org/10.3390/ijms20081884>.

ANGELISOVÁ, P., BALLEK, O., SÝKORA, J., BENADA, O., ČAJKA, T., POKORNÁ, J., PINKAS, D., HOŘEJŠÍ, V. The use of styrene-maleic acid copolymer (SMA) for studies on T cell membrane rafts. *Biochimica Et Biophysica Acta-Biomembranes*. 2019, **1861**(1), 130-141. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2018.08.006>.

BREJCHA, J., BATALLER, J. V., BOSÁKOVÁ, Z., GERYK, J., HAVLÍKOVÁ, M., KLEISNER, K., MARŠÍK, P., FONT, E. Body coloration and mechanisms of colour production in Archelosauria: the case of deirocheline turtles. *Royal Society Open Science*. 2019, **6**(7), 190319. ISSN 2054-5703. E-ISSN 2054-5703. Dostupné z: <https://doi.org/10.1098/rsos.190319>.

DÜRST, C. D., WIEGERT, J. S., HELASSA, N., KERRUTH, S., COATES, C., SCHULZE, C., GEEVES, M. A., TÖRÖK, K., OERTNER, T. G. High-speed imaging of glutamate release with genetically encoded sensors. *Nature Protocols*. 2019, **14**(5), 1401-1424. ISSN 1754-2189. E-ISSN 1750-2799. Dostupné z: <https://doi.org/10.1038/s41596-019-0143-9>.

FILIPE, H. A. L., POKORNÁ, Š., HOF, M., AMARO, M. M., LOURA, L. M. S. Orientation of nitro-group governs the fluorescence lifetime of nitrobenzoxadiazole (NBD)-labeled lipids in lipid bilayers. *Physical Chemistry Chemical Physics*. 2019, **21**(4), 1682-1688. ISSN 1463-9076. E-ISSN 1463-9084. Dostupné z: <https://doi.org/10.1039/c8cp06064a>.

GLATZOVÁ, D., CEBECAUER, M. Dual Role of CD4 in Peripheral T Lymphocytes. *Frontiers in Immunology*. 2019, **10**(APR 2019), 618. ISSN 1664-3224. E-ISSN 1664-3224. Dostupné z <https://doi.org/10.3389/fimmu.2019.00618>.

HOLUB, K., SAMEC, Z., MAREČEK, V. Role of water in the mechanism of the salt extraction to the organic solvent. *Electrochimica acta*. 2019, **306**(MAY 2019), 541-548. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2019.03.096>.

LANGMAIER, J., SKOPALOVÁ, J., NAVRÁTIL, T., SAMEC, Z. Detection of antimuscarinic agents tolterodine and fesoterodine and their metabolite 5-hydroxymethyl tolterodine by ion transfer voltammetry at a polarized room-temperature ionic liquid membrane. *Electrochimica acta*. 2019, **304**(MAY 2019), 54-61. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2019.02.086>.

LIU, Y., CUENDET, M. A., GOFFIN, L., ŠACHL, R., CEBECAUER, M., CARIOLATO, L., GUILLAUME, P., REICHENBACH, P., IRVING, M., COUKOS, G., LUESCHER, I.F. CD8 Binding of MHC-Peptide Complexes in cis or trans Regulates CD8+ T-cell Responses. *Journal of Molecular Biology*. 2019, **431**(24), 4941-4958. ISSN 0022-2836. E-ISSN 1089-8638. Dostupné z: <https://doi.org/10.1016/j.jmb.2019.10.019>.

LUNOV, O., UZHYTCHAK, M., SMOLKOVÁ, B., LUNOVA, M., JIRSA, M., DEMPSEY, N.M., DIAS, A.L., BONFIM, M., HOF, M., JURKIEWICZ, P., PETRENKO, Y., KUBINOVÁ, Š., DEJNEKA, A. Remote actuation of apoptosis in liver cancer cells via magneto-mechanical modulation of iron oxide nanoparticles. *Cancers (Basel)*. 2019, **11**(12), 1-21, 1873. ISSN 2072-6694. E-ISSN 2072-6694. Dostupné z: <https://doi.org/10.3390/cancers11121873>.

MELCROVÁ, A., POKORNÁ, Š., VOŠAHLÍKOVÁ, M., SÝKORA, J., SVOBODA, P., HOF, M., CWIKLIK, L., JURKIEWICZ, P. Concurrent Compression of Phospholipid Membranes by Calcium and Cholesterol. *Langmuir : the ACS journal of surfaces and colloids*. 2019, **35**(35), 11358-11368. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.9b00477>.

OWEN, M. C., KARNER, A., ŠACHL, R., PREINER, J., AMARO, M. M., VÁCHA, R. Force Field Comparison of GM1 in a DOPC Bilayer Validated with AFM and FRET Experiments. *Journal of Physical Chemistry B*. 2019, **123**(35), 7504-7517. ISSN 1520-6106. E-ISSN 1520-5207. Dostupné z: <https://doi.org/10.1021/acs.jpccb.9b05095>.

POOJARI, C., WILKOSZ, N., LIRA, R. B., DIMOVA, R., JURKIEWICZ, P., PETKA, R., KEPZYNSKI, M., RÓG, T. Behavior of the DPH fluorescence probe in membranes perturbed by drugs. *Chemistry and Physics of Lipids*. 2019, **223**(SEP 2019), 104784. ISSN 0009-3084. E-ISSN 1873-2941. Dostupné z: <https://doi.org/10.1016/j.chemphyslip.2019.104784>.

SILVER, B. R. Detection of Water-in-Oil Droplet Formation within an Interfacial Region Formed by an Aqueous/1,2-Dichloroethane Interface Using Transient Cell Impedance Measurements at a Single High Frequency. *Russian Journal of Electrochemistry*. 2019, **55**(3), 236-241. ISSN 1023-1935. E-ISSN 1608-3342. Dostupné z: <https://doi.org/10.1134/S1023193519020095>.

TAKEMATSU, K., POSPÍŠIL, P., PIŽL, M., TOWRIE, M., HEYDA, J., ZÁLIŠ, S., KAISER, J. T., WINKLER, J. R., GRAY, H. B., VLČEK, A. Hole Hopping Across a Protein-Protein Interface. *Journal of Physical Chemistry B*. 2019, **123**(7), 1578-1591. ISSN 1520-6106. E-ISSN 1520-5207. Dostupné z: <https://doi.org/10.1021/acs.jpccb.8b11982>.

TAKEMATSU, K., WILLIAMSON, H., NIKOLOVSKI, P., KAISER, J. T., SHENG, Y., POSPÍŠIL, P., TOWRIE, M., HEYDA, J., HOLLAS, D., ZÁLIŠ, S., GRAY, H. B., VLČEK, A., WINKLER, J. R. Two Tryptophans Are Better Than One in Accelerating Electron Flow through a Protein. *ACS Central Science*. 2019, **5**(1), 192-200. ISSN 2374-7943. E-ISSN 2374-7951. Dostupné z: <https://doi.org/10.1021/acscentsci.8b00882>.

TROJÁNEK, A., SAMEC, Z. Study of the emulsion droplet collisions with the polarizable water/1,2-dichloroethane interface by the open circuit potential measurements. *Electrochimica acta*. 2019, **299**(MAR 2019), 875-885. ISSN 0013-4686. E-ISSN 1873-3859. Dostupné z: <https://doi.org/10.1016/j.electacta.2019.01.041>.

VINKLÁREK, I. S., VEL'AS, L., RIEGEROVÁ, P., SKÁLA, K., MIKHALYOV, I., GRETSKAYA, N., HOF, M., ŠACHL, R. Experimental Evidence of the Existence of Interleaflet Coupled Nanodomains: An MC-FRET Study. *Journal of Physical Chemistry Letters*. 2019, **10**(9), 2024-2030. ISSN 1948-7185. Dostupné z: <https://doi.org/10.1021/acs.jpcllett.9b00390>.

ALLOLIO, C., MAGARKAR, A., JURKIEWICZ, P., BAXOVÁ, K., JAVANAINEN, M., MASON, P. E., ŠACHL, R., CEBECAUER, M., HOF, M., HORINEK, D., HEINZ, V., RACHEL, R., ZIEGLER, C. M., SCHRÖFEL, A., JUNGWIRTH, P. Arginine-rich cell-penetrating peptides induce membrane multilamellarity and subsequently enter via formation of a fusion pore. *Proceedings of the National Academy of Sciences of the United States of America*. 2018, **115**(47), 11923-11928. ISSN 0027-8424. E-ISSN 1091-6490. Dostupné z: <https://doi.org/10.1073/pnas.1811520115>.

BRAUN, S., POKORNÁ, Š., ŠACHL, R., HOF, M., HEERKLOTZ, H., HOERNKE, M. Biomembrane Permeabilization: Statistics of Individual Leakage Events Harmonize the Interpretation of Vesicle Leakage. *ACS Nano*. 2018, **12**(1), 813-819. ISSN 1936-0851. E-ISSN 1936-086X. Dostupné z: <https://doi.org/10.1021/acsnano.7b08184>

BROWN, A. M., MCCUSKER, C. E., CAREY, M. C., BLANCO-RODRÍGUEZ, A. M., TOWRIE, M., CLARK, I. P., VLČEK, A., MCCUSKER, J. K. Vibrational Relaxation and Redistribution Dynamics in Ruthenium(II) Polypyridyl-Based Charge-Transfer Excited States: A Combined Ultrafast Electronic and Infrared Absorption Study. *Journal of Physical Chemistry A*. 2018, **122**(40), 7941-7953. ISSN 1089-5639. E-ISSN 1520-5215. Dostupné z: <https://doi.org/10.1021/acs.jpca.8b06197>

BUBRIN, M., KVAPILOVÁ, H., FIEDLER, J., EHRET, F., ZÁLIŠ, S., KAIM, W. Hybrid alpha-Diimine/Bis(chalcogenoether) Ligands for Copper(I) and Copper(II) Complexes. *Zeitschrift für anorganische und allgemeine Chemie*. 2018, **644**(14), 661-670. ISSN 0044-2313. E-ISSN 1521-3749. Dostupné z: <https://doi.org/10.1002/zaac.201800073>.

CEBECAUER, M., AMARO, M. M., JURKIEWICZ, P., SARMENTO, M. J., ŠACHL, R., Cwiklik, L., HOF, M. Membrane Lipid Nanodomains. *Chemical Reviews*. 2018, **118**(23), 11259-11297. ISSN 0009-2665. E-ISSN 1520-6890. Dostupné z: <https://doi.org/10.1021/acs.chemrev.8b00322>

CYBORAN-MIKOŁAJCZYK, S., JURKIEWICZ, P., HOF, M., KLESZCZYŃSKA, H. The Impact of O-Glycosylation on Cyanidin Interaction with POPC Membranes: Structure-Activity Relationship. *Molecules*. 2018, **23**(11), 2771. ISSN 1420-3049. E-ISSN 1420-3049. Dostupné z: <https://doi.org/10.3390/molecules23112771>

GHOSE, A., AMARO, M. M., KOVAŘÍČEK, P., HOF, M., SÝKORA, J. 6,7-dimethoxy-coumarin as a probe of hydration dynamics in biologically relevant systems. *Methods and Applications in Fluorescence*. 2018, **6**(2), 025005. ISSN 2050-6120. E-ISSN 2050-6120. Dostupné z: <https://doi.org/10.1088/2050-6120/aaaa05>

HOLÓUBEK, A., HERMAN, P., SÝKORA, J., BRODSKÁ, B., HUMPOLÍČKOVÁ, J., KRÁČMAROVÁ, M., GÁŠKOVÁ, D., HOF, M., KUŽELOVÁ, K. Monitoring of nucleophosmin oligomerization in live cells. *Methods and Applications in Fluorescence*. 2018, **6**(3), 035016. ISSN 2050-6120. E-ISSN 2050-6120. Dostupné z: <https://doi.org/10.1088/2050-6120/aacbb9>

CHEN, L., LIM, K. J. C., BABRA, T. S., TAYLOR, J. O., PIŽL, M., EVANS, R., CHIPPINDALE, A. M., HARTL, F., COLQUHOUN, H. M., GREENLAND, B. W. A macrocyclic receptor containing two viologen species connected by conjugated terphenyl groups. *Organic & Biomolecular Chemistry*. 2018, **16**(27), 5006-5015. ISSN 1477-0520. E-ISSN 1477-0539. Dostupné z: <https://doi.org/10.1039/c8ob00919h>

KAIM, W., BEYER, K., FILIPPOU, V., ZÁLIŠ, S. Charge and spin coupling in copper compounds with hemilabile noninnocent ligands – Ambivalence in three dimensions. *Coordination Chemistry Reviews*. 2018, **355**(JAN 2018), 173-179. ISSN 0010-8545. E-ISSN 1873-3840. Dostupné z: <https://doi.org/10.1016/j.ccr.2017.08.006>

KOKKONEN, P., SÝKORA, J., PROKOP, Z., GHOSE, A., BEDNÁŘ, D., AMARO, M. M., BEERENS, K., BIDMANOVÁ, Š., SLÁNSKÁ, M., BŘEZOVSKÝ, J., DAMBORSKÝ, J., HOF, M. Molecular Gating of an Engineered Enzyme Captured in Real Time. *Journal of the American Chemical Society*. 2018, **140**(51), 17999-18008. ISSN 0002-7863. E-ISSN 1520-5126. Dostupné z: <https://doi.org/10.1021/jacs.8b09848>

KOUKALOVÁ, A., POKORNÁ, Š., BOYLE, A. L., LOPEZ MORA, N., KROS, A., HOF, M., ŠACHL, R. Distinct roles of SNARE-mimicking lipopeptides during initial steps of membrane fusion. *Nanoscale*. 2018, **10**(40), 19064-19073. ISSN 2040-3364. E-ISSN 2040-3372. Dostupné z: <https://doi.org/10.1039/C8NR05730C>

KOVAŘÍČEK, P., CEBECAUER, M., NEBURKOVÁ, J., BARTOŇ, J., FRIDRICHOVÁ, M., DROGOWSKA, K., CÍGLER, P., LEHN, J.-M., KALBÁČ, M. Proton-Gradient-Driven Oriented Motion of Nanodiamonds Grafted to Graphene by Dynamic Covalent Bonds. *ACS Nano*. 2018, **12**(7), 7141-7147. ISSN 1936-0851. E-ISSN 1936-086X. Dostupné z: <https://doi.org/10.1021/acsnano.8b03015>

KRÁLOVÁ, J., GLATZOVÁ, D., BORNA, Š., BRDIČKA, T. Expression of Fluorescent Fusion Proteins in Murine Bone Marrow-derived Dendritic Cells and Macrophages. *Jove-Journal of Visualized Experiments*. 2018, **2018**(140), e58081. ISSN 1940-087X. E-ISSN 1940-087X. Dostupné z: <https://doi.org/10.3791/58081>

KULIG, W., MIKKOLAINEN, H., OLŽYŇSKA, A., JURKIEWICZ, P., CWIKLIK, L., HOF, M., VATTULAINEN, I., JUNGWIRTH, P., ROG, T. Bobbing of Oxysterols: Molecular Mechanism for Translocation of Tail-Oxidized Sterols through Biological Membranes. *Journal of Physical Chemistry Letters*. 2018, **9**(5), 1118-1123. ISSN 1948-7185. Dostupné z: <https://doi.org/10.1021/acs.jpclett.8b00211>

LANGMAIER, J., ZÁLIŠ, S., SAMEC, Z. Lipophilicity of acetylcholine and related ions examined by ion transfer voltammetry at a polarized room-temperature ionic liquid membrane. *Journal of Electroanalytical Chemistry*. 2018, **815**(APR 2018), 183-188. ISSN 1572-6657. E-ISSN 1873-2569. Dostupné z: <https://doi.org/10.1016/j.jelechem.2018.03.019>

MAREČEK, V. Electrochemical monitoring of the co-extraction of water with hydrated ions into an organic solvent. *Electrochemistry Communications*. 2018, **88**(MAR 2018), 57-60. ISSN 1388-2481. E-ISSN 1873-1902. Dostupné z: <https://doi.org/10.1016/j.elecom.2018.01.017>

MEURER, M., DUAN, Y., SASS, E., KATS, I., HERBST, K., BUCHMULLER, B.C., DEDERER, V., HUBER, F., KIRRMAYER, D., ŠTEFL, M., VAN LAER, K., DICK, T.P., LEMBERG, M. K., KHMELINSKII, A., LEVY, E.D., KNOP, M. Genome-wide C-SWAT library for high-throughput yeast genome tagging. *Nature Methods*. 2018, **15**(8), 598-600. ISSN 1548-7091. E-ISSN 1548-7105. Dostupné z: <https://doi.org/10.1038/s41592-018-0045-8>.

MIRZA, W. B., PEDERZOLI, M., JURKIEWICZ, P., CWIKLIK, L., PITTLNER, J. Orientation of Laurdan in Phospholipid Bilayers Influences Its Fluorescence: Quantum Mechanics and Classical Molecular Dynamics Study. *Molecules*. 2018, **23**(7), 1707. ISSN 1420-3049. E-ISSN 1420-3049. Dostupné z: <https://doi.org/10.3390/molecules23071707>

MONDAL, S., SCHWEDERSKI, B., FREY, W., FIEDLER, J., ZÁLIŠ, S., KAIM, W. At the Borderline between Metal-Metal Mixed Valency and a Radical Bridge Situation: Four Charge States of a Diruthenium Complex with a Redox-Active Bis(mer-tridentate) Ligand. *Inorganic Chemistry*. 2018, **57**(7), 3983-3992. ISSN 0020-1669. E-ISSN 1520-510X. Dostupné z: <https://doi.org/10.1021/acs.inorgchem.8b00173>

MONNI, R., CAPANO, G., AUBÖCK, G., GRAY, H. B., VLČEK, A., TAVERNELLI, I. Vibrational coherence transfer in the ultrafast intersystem crossing of a diplatinum complex in solution. *Proceedings of the National Academy of Sciences of the United States of America*. 2018, **115**(28), E6396-E6403. ISSN 0027-8424. E-ISSN 1091-6490. Dostupné z: <https://doi.org/10.1073/pnas.1719899115>

OLŠINOVÁ, M., JURKIEWICZ, P., KISHKO, I., SÝKORA, J., SABÓ, J., HOF, M., CWIKLIK, L., CEBECAUER, M. Roughness of Transmembrane Helices Reduces Lipid Membrane Dynamics. *iScience*. 2018, **10**(DEC 2018), 87-97. E-ISSN 2589-0042. Dostupné z: <https://doi.org/10.1016/j.isci.2018.11.026>

POMARICO, E., POSPÍŠIL, P., BOUDUBAN, M. E. F., VESTFRID, J., GROSS, Z., ZÁLIŠ, S., CHERGUI, M., VLČEK, A. Photophysical Heavy-Atom Effect in Iodinated Metallocorroles: Spin-Orbit Coupling and Density of States. *Journal of Physical Chemistry A*. 2018, **122**(37), 7256-7266. ISSN 1089-5639. E-ISSN 1520-5215. Dostupné z: <https://doi.org/10.1021/acs.jpca.8b05311>

PRUCHNIK, H., KRÁL, T., HOF, M. Lipid and DNA interaction with the triorganotin dimethylaminophenylazobenzoates studied by DSC and spectroscopy methods. *Journal of Thermal Analysis and Calorimetry*. 2018, **134**(1), 691-700. ISSN 1388-6150. E-ISSN 1588-2926. Dostupné z: <https://doi.org/10.1007/s10973-018-7665-1>

SARMENTO, M. J., ONETO, M., PELICCI, S., PESCE, L., SCIPIONI, L., FARETTA, M., FURIA, L., DELLINO, G.I., PELICCI, P.G., BIANCHINI, P., DIASPRO, A., LANZANO, L. Exploiting the tunability of stimulated emission depletion microscopy for super-resolution imaging of nuclear structures. *Nature Communications*. 2018, **9**(AUG 2018), 3415. ISSN 2041-1723. E-ISSN 2041-1723. Dostupné z: <https://doi.org/10.1038/s41467-018-05963-2>.

SHESTIVSKA, V., OLŠINOVÁ, M., SOVOVÁ, K., KUBIŠTA, J., SMITH, D., CEBECAUER, M., ŠPANĚL, P. Evaluation of lipid peroxidation by the analysis of volatile aldehydes in the headspace of synthetic membranes using selected ion flow tube mass spectrometry. *Rapid Communications in Mass Spectrometry*. 2018, **32**(18), 1617-1628. ISSN 0951-4198. E-ISSN 1097-0231. Dostupné z: <https://doi.org/10.1002/rcm.8212>

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Interfacial instability associated with the transfer of non-adsorbing ions across the polarized water/1,2-dichloroethane interface. *Journal of Electroanalytical Chemistry*. 2018, **819**(JUN 2018), 95-100. ISSN 1572-6657. E-ISSN 1873-2569. Dostupné z: <https://doi.org/10.1016/j.jelechem.2017.09.011>

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Open circuit potential transients associated with single emulsion droplet collisions at an interface between two immiscible electrolyte solutions. *Electrochemistry Communications*. 2018, **86**(JAN 2018), 113-116. ISSN 1388-2481. E-ISSN 1873-1902. Dostupné z: <https://doi.org/10.1016/j.elecom.2017.11.026>

AMARO, M. M., REINA, F., HOF, M., EGGELING, C., SEZGIN, E. Laurdan and Di-4-ANEPPDHQ probe different properties of the membrane. *Journal of Physics D-Applied Physics*. 2017, **50**(13), 134004. ISSN 0022-3727. E-ISSN 1361-6463. Dostupné z: <https://doi.org/10.1088/1361-6463/aa5dbc>

BUBRIN, M., PARETZKI, A., HÜBNER, R., BEYER, K., SCHWEDERSKI, B., NEUGEBAUER, P., ZÁLIŠ, S., KAIM, W. Probing the Intramolecular Metal-Selenoether Interaction in a Bis(iminosemiquinone) copper(II) Compound. *Zeitschrift für anorganische und allgemeine Chemie*. 2017, **643**(21), 1621-1627. ISSN 0044-2313. E-ISSN 1521-3749. Dostupné z: <https://doi.org/10.1002/zaac.201700282>

BUNINA, D., ŠTEFL, M., HUBER, F., KHMELINSKII, A., MEURER, M., BARRY, J.D., KATS, I., KIRRMAYER, D., HUBER, W., KNOP, M. Upregulation of SPS100 gene expression by an antisense RNA via a switch of mRNA isoforms with different stabilities. *Nucleic Acids Research*. 2017, **45**(19), 11144-11158. ISSN 0305-1048. E-ISSN 1362-4962. Dostupné z: <https://doi.org/10.1093/nar/gkx737>.

CEBECAUER, M., HOLOWKA, D. Editorial: Molecular Organization of Membranes: Where Biology Meets Biophysics. *Frontiers in Cell and Developmental Biology*. 2017, **5**(113), 1-3. ISSN 2296-634X. E-ISSN 2296-634X. Dostupné z: <https://doi.org/10.3389/fcell.2017.00113>.

CEBECAUER, M., HOF, M., AMARO, M. M. Impact of GM(1) on Membrane-Mediated Aggregation/Oligomerization of beta-Amyloid: Unifying View. *Biophysical Journal*. 2017, **113**(6), 1194-1199. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2017.03.009>

CYBORAN-MIKOLAJCZYK, S., ZYLKA, R., JURKIEWICZ, P., PRUCHNIK, H., OSZMIANSKI, J., HOF, M., KLESZCZYNSKA, H. Interaction of procyanidin B-3 with membrane lipids Fluorescence, DSC and FTIR studies. *Biochimica Et Biophysica Acta-Biomembranes*. 2017, **1859**(8), 1362-1371. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2017.04.026>

DILGENDEIN, A. P., POKORNÁ, Š., LIDMAN, M., SPARRMAN, T., ŠACHL, R., HOF, M., GRÖBNER, G. Apoptotic Bax at Oxidatively Stressed Mitochondrial Membranes: Lipid Dynamics and Permeabilization. *Biophysical Journal*. 2017, **112**(10), 2147-2158. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2017.04.019>

FISCHERMEIER, E., POSPÍŠIL, P., SAYED, A., HOF, M., SOLIOZ, M., FAHMY, K. Dipolar Relaxation Dynamics at the Active Site of an ATPase Regulated by Membrane Lateral Pressure. *Angewandte Chemie - International Edition*. 2017, **56**(5), 1269-1272. ISSN 1433-7851. E-ISSN 1521-3773. Dostupné z: <https://doi.org/10.1002/anie.201611582>

JAVANAINEN, M., MELCROVÁ, A., MAGARKAR, A., JURKIEWICZ, P., HOF, M., JUNGWIRTH, P., MARTINEZ-SEARA, H. ISSN 2041-1723. E-ISSN 2041-1723. Dostupné z: <https://doi.org/10.1038/s41467-018-05963-2>.

SHESTIVSKA, V., OLŠINOVÁ, M., SOVOVÁ, K., KUBIŠTA, J., SMITH, D., CEBECAUER, M., ŠPANĚL, P. Evaluation of lipid peroxidation by the analysis of volatile aldehydes in the headspace of synthetic membranes using selected ion flow tube mass spectrometry. *Rapid Communications in Mass Spectrometry*. 2018, **32**(18), 1617-1628. ISSN 0951-4198. E-ISSN 1097-0231. Dostupné z: <https://doi.org/10.1002/rcm.8212>

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Interfacial instability associated with the transfer of non-adsorbing ions across the polarized water/1,2-dichloroethane interface. *Journal of Electroanalytical Chemistry*. 2018, **819**(JUN 2018), 95-100. ISSN 1572-6657. E-ISSN 1873-2569. Dostupné z: <https://doi.org/10.1016/j.jelechem.2017.09.011>

TROJÁNEK, A., MAREČEK, V., SAMEC, Z. Open circuit potential transients associated with single emulsion droplet collisions at an interface between two immiscible electrolyte solutions. *Electrochemistry Communications*. 2018, **86**(JAN 2018), 113-116. ISSN 1388-2481. E-ISSN 1873-1902. Dostupné z: <https://doi.org/10.1016/j.elecom.2017.11.026>

AMARO, M. M., REINA, F., HOF, M., EGGELING, C., SEZGIN, E. Laurdan and Di-4-ANEPPDHQ probe different properties of the membrane. *Journal of Physics D-Applied Physics*. 2017, **50**(13), 134004. ISSN 0022-3727. E-ISSN 1361-6463. Dostupné z: <https://doi.org/10.1088/1361-6463/aa5dbc>

BUBRIN, M., PARETZKI, A., HÜBNER, R., BEYER, K., SCHWEDERSKI, B., NEUGEBAUER, P., ZÁLIŠ, S., KAIM, W. Probing the Intramolecular Metal-Selenoether Interaction in a Bis(iminosemiquinone) copper(II) Compound. *Zeitschrift für anorganische und allgemeine Chemie*. 2017, **643**(21), 1621-1627. ISSN 0044-2313. E-ISSN 1521-3749. Dostupné z: <https://doi.org/10.1002/zaac.201700282>

BUNINA, D., ŠTEFL, M., HUBER, F., KHMELINSKII, A., MEURER, M., BARRY, J.D., KATS, I., KIRMAIER, D., HUBER, W., KNOP, M. Upregulation of SPS100 gene expression by an antisense RNA via a switch of mRNA isoforms with different stabilities. *Nucleic Acids Research*. 2017, **45**(19), 11144-11158. ISSN 0305-1048. E-ISSN 1362-4962. Dostupné z: <https://doi.org/10.1093/nar/gkx737>.

CEBECAUER, M., HOLOWKA, D. Editorial: Molecular Organization of Membranes: Where Biology Meets Biophysics. *Frontiers in Cell and Developmental Biology*. 2017, **5**(113), 1-3. ISSN 2296-634X. E-ISSN 2296-634X. Dostupné z: <https://doi.org/10.3389/fcell.2017.00113>.

CEBECAUER, M., HOF, M., AMARO, M. M. Impact of GM(1) on Membrane-Mediated Aggregation/Oligomerization of beta-Amyloid: Unifying View. *Biophysical Journal*. 2017, **113**(6), 1194-1199. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2017.03.009>

CYBORAN-MIKOLAJCZYK, S., ZYLKA, R., JURKIEWICZ, P., PRUCHNIK, H., OSZMIANSKI, J., HOF, M., KLESZCZYNSKA, H. Interaction of procyanidin B-3 with membrane lipids Fluorescence, DSC and FTIR studies. *Biochimica Et Biophysica Acta-Biomembranes*. 2017, **1859**(8), 1362-1371. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2017.04.026>

DILGENDEIN, A. P., POKORNÁ, Š., LIDMAN, M., SPARRMAN, T., ŠACHL, R., HOF, M., GRÖBNER, G. Apoptotic Bax at Oxidatively Stressed Mitochondrial Membranes: Lipid Dynamics and Permeabilization. *Biophysical Journal*. 2017, **112**(10), 2147-2158. ISSN 0006-3495. E-ISSN 1542-0086. Dostupné z: <https://doi.org/10.1016/j.bpj.2017.04.019>

FISCHERMEIER, E., POSPÍŠIL, P., SAYED, A., HOF, M., SOLIOZ, M., FAHMY, K. Dipolar Relaxation Dynamics at the Active Site of an ATPase Regulated by Membrane Lateral Pressure. *Angewandte Chemie - International Edition*. 2017, **56**(5), 1269-1272. ISSN 1433-7851. E-ISSN 1521-3773. Dostupné z: <https://doi.org/10.1002/anie.201611582>

JAVANAINEN, M., MELCROVÁ, A., MAGARKAR, A., JURKIEWICZ, P., HOF, M., JUNGWIRTH, P., MARTINEZ-SEARA, H. Two cations, two mechanisms: interactions of sodium and calcium with zwitterionic lipid membranes. *Chemical Communications*. 2017, **53**(39), 5380-5383. ISSN 1359-7345. E-ISSN 1364-548X. Dostupné z: <https://doi.org/10.1039/c7cc02208e>

KOUKALOVÁ, A., AMARO, M. M., AYDOGAN, G., GRÖBNER, G., WILLIAMSON, P. T. F., MIKHALYOV, I., HOF, M., ŠACHL, R. Lipid Driven Nanodomains in Giant Lipid Vesicles are Fluid and Disordered. *Scientific Reports*. 2017, **7**(JUL 2017), 5460. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-017-05539-y>

LUKEŠ, T., GLATZOVÁ, D., KVÍČALOVÁ, Z., LEVET, F., BENDA, A., LETSCHERT, S., SAUER, M., BRDIČKA, T., LASSER, T., CEBECAUER, M. Quantifying protein densities on cell membranes using super-resolution optical fluctuation imaging. *Nature Communications*. 2017, **8**(1), 1731. ISSN 2041-1723. E-ISSN 2041-1723. Dostupné z: <https://doi.org/10.1038/s41467-017-01857-x>

LUNOVA, M., PROKHOROV, A., JIRSA, M., HOF, M., OLŽYŇSKA, A., JURKIEWICZ, P., KUBINOVÁ, Š., LUNOV, O., DEJNEKA, A. Nanoparticle core stability and surface functionalization drive the mTOR signaling pathway in hepatocellular cell lines. *Scientific Reports*. 2017, **7**(Nov), 1-16), 16049. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-017-16447-6>

MAGARKAR, A., JURKIEWICZ, P., ALLOLIO, C., HOF, M., JUNGWIRTH, P. Increased Binding of Calcium Ions at Positively Curved Phospholipid Membranes. *Journal of Physical Chemistry Letters*. 2017, **8**(2), 518-523. ISSN 1948-7185. Dostupné z: <https://doi.org/10.1021/acs.jpcllett.6b02818>

OLŽYŇSKA, A., CWIKLIK, L. Behavior of sphingomyelin and ceramide in a tear film lipid layer model. *Annals of Anatomy-Anatomischer Anzeiger*. 2017, **210**(MAR 2017), 128-134. ISSN 0940-9602. E-ISSN 1618-0402. Dostupné z: <https://doi.org/10.1016/j.aanat.2016.10.005>

ONDIČ, L., VARGA, M., HRUŠKA, K., FAIT, J., KAPUSTA, P. Enhanced extraction of silicon-vacancy centers light emission using bottom-up engineered polycrystalline diamond photonic crystal slabs. *ACS Nano*. 2017, **11**(3), 2972-2981. ISSN 1936-0851. E-ISSN 1936-086X. Dostupné z: <https://doi.org/10.1021/acsnano.6b08412>

PLEBST, S., BUBRIN, M., SCHWEINFURTH, D., ZÁLIŠ, S., KAIM, W. Metal carbonyl complexes of potentially ambidentate 2,1,3-benzothiadiazole and 2,1,3-benzoselenadiazole acceptors. *Zeitschrift fur Naturforschung. Section B: a Journal of Chemical Sciences*. 2017, **72**(11), 839-846. ISSN 0932-0776. E-ISSN 1865-7117. Dostupné z: <https://doi.org/10.1515/znb-2017-0100>.

PRUCHNIK, H., KRAL, T., HOF, M. Interaction of Newly Platinum(II) with Tris(2-carboxyethyl)phosphine Complex with DNA and Model Lipid Membrane. *Journal of Membrane Biology*. 2017, **250**(5), 461-470. ISSN 0022-2631. E-ISSN 1432-1424. Dostupné z: <https://doi.org/10.1007/s00232-017-9972-z>

SARMENTO, M. J., COUTINHO, A., FEDOROV, A., PRIETO, M., FERNANDES, F. Membrane Order Is a Key Regulator of Divalent Cation-Induced Clustering of PI(3,5)P2 and PI(4,5)P2. *Langmuir : the ACS journal of surfaces and colloids*. 2017, **33**(43), 12463-12477. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.7b00666>

SJÖHOLM, C., BERGSTRAND, J., NILSSON, T., ŠACHL, R., VON BALLMOOS, C., WIDENGREN, J., BRZEZINSKI, P. The lateral distance between a proton pump and ATP synthase determines the ATP-synthesis rate. *Scientific Reports*. 2017, **7**(1), 2926. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/s41598-017-02836-4>

STERINGER, J. P., LANGE, S., ČUJOVÁ, S., ŠACHL, R., POOJARI, C., LOLICATO, F., BEUTEL, O., MÜLLER, H.-M., UNGER, S., COSKUN, U., HONIGMANN, A., VATTULAINEN, I., HOF, M., FREUND, C., NICKEL, W. Key steps in unconventional secretion of fibroblast growth factor 2 reconstituted with purified components. *eLife*. 2017, **6**(2017), e28985. ISSN 2050-084X. E-ISSN 2050-084X. Dostupné z: <https://doi.org/10.7554/eLife.28985.001>

ALBUQUERQUE, L. J. C., ANNES, K., MILAZZOTTO, M. P., MATTEI, B., RISKE, K. A., JÄGER, E., PÁNEK, J., ŠTĚPÁNEK, P., KAPUSTA, P., MURARO, P. I. R., DE FREITAS, A. G. O., SCHMIDT, V., GIACOMELLI, C., BONVENT, J.-J., GIACOMELLI, F. C. Efficient condensation of DNA into environmentally responsive polyplexes produced from block cationomers carrying amine or diamine groups. *Langmuir : the ACS journal of surfaces and colloids*. 2016, **32**(2), 577-586. ISSN 0743-7463. E-ISSN 1520-5827. Dostupné z: <https://doi.org/10.1021/acs.langmuir.5b04080>

AMARO, M. M., FILIPE, H. A., RAMALHO, J. P. P., HOF, M., LOURA, L. M. S. Fluorescence of nitrobenzoxadiazole (NBD) labeled lipids in model membranes is connected not to lipid mobility, but to probe location. *Physical Chemistry Chemical Physics*. 2016, **18**(10), 7042-7054. ISSN 1463-9076. E-ISSN 1463-9084. Dostupné z: <https://doi.org/10.1039/c5cp05238f>

AMARO, M. M., ŠACHL, R., AYDOGAN, G., MIKHAYLOV, I., VÁCHA, R., HOF, M. GM1 Ganglioside Inhibits β -Amyloid Oligomerization Induced by Sphingomyelin. *Angewandte Chemie - International Edition*. 2016, **55**(32), 9411-9415. ISSN 1433-7851. E-ISSN 1521-3773. Dostupné z: <https://doi.org/10.1002/anie.201603178>

DE LA SERNA, J. B., SCHÜTZ, G., EGGELING, C., CEBECAUER, M. There Is No Simple Model of the Plasma Membrane Organization. *Frontiers in Cell and Developmental Biology*. 2016, **4**(SEP 2016), 106. ISSN 2296-634X. E-ISSN 2296-634X. Dostupné z: <https://doi.org/10.3389/fcell.2016.00106>

DZIUBA, D., JURKIEWICZ, P., CEBECAUER, M., HOF, M., HOCEK, M. A Rotational BODIPY Nucleotide: An Environment-Sensitive Fluorescence-Lifetime Probe for DNA Interactions and Applications in Live-Cell Microscopy. *Angewandte Chemie - International Edition*. 2016, **55**(1), 174-178. ISSN 1433-7851. E-ISSN 1521-3773. Dostupné z: <https://doi.org/10.1002/anie.201507922>.

DZIUBA, D., POSPÍŠIL, P., MATYAŠOVSKÝ, J., BRYNDA, J., NACHTIGALLOVÁ, D., RULÍŠEK, L., POHL, R., HOF, M., HOCEK, M. Solvatochromic fluorene-linked nucleoside and DNA as color-changing fluorescent probes for sensing interactions. *Chemical Science*. 2016, **7**(9), 5775-5785. ISSN 2041-6520. E-ISSN 2041-6539. Dostupné z: <https://doi.org/10.1039/c6sc02548j>.

CHUM, T., GLATZOVÁ, D., KVÍČALOVÁ, Z., MALÍNSKÝ, J., BRDIČKA, T., CEBECAUER, M. The role of palmitoylation and transmembrane domain in sorting of transmembrane adaptor proteins. *Journal of Cell Science*. 2016, **129**(1), 95-107. ISSN 0021-9533. E-ISSN 1477-9137. Dostupné z: <https://doi.org/10.1242/jcs.175190>

KULIG, W., CWIKLIK, L., JURKIEWICZ, P., ROG, T., VATTULAINEN, I. Cholesterol oxidation products and their biological importance. *Chemistry and Physics of Lipids*. 2016, **199**(SI), 144-160. ISSN 0009-3084. E-ISSN 1873-2941. Dostupné z: <https://doi.org/10.1016/j.chemphyslip.2016.03.001>

KŮSOVÁ, K., PELANT, I., HUMPOLÍČKOVÁ, J., HOF, M. Comprehensive description of blinking-dynamics regimes in singledirect-band-gap silicon nanocrystals. *Physical Review B*. 2016, **93**(3), 1-13, 035412. ISSN 1098-0121. E-ISSN 2469-9969. Dostupné z: <https://doi.org/10.1103/PhysRevB.93.035412>

LAŇKOVÁ, M., HUMPOLÍČKOVÁ, J., VOSOLSOBĚ, S., CIT, Z., LACEK, J., ČOVAN, M., ČOVANOVÁ, M., HOF, M., PETRÁŠEK, J. Determination of Dynamics of Plant Plasma Membrane Proteins with Fluorescence Recovery and Raster Image Correlation Spectroscopy. *Microscopy and Microanalysis*. 2016, **22**(2), 290-299. ISSN 1431-9276. E-ISSN 1435-8115. Dostupné z: <https://doi.org/10.1017/S1431927616000568>

LIDMAN, M., POKORNÁ, Š., DINGELDEIN, A. P. G., SPARRMAN, T., WALLGREN, M., ŠACHL, R., HOF, M., GRÖBNER, G. The oxidized phospholipid PazePC promotes permeabilization of mitochondrial membranes by Bax. *Biochimica Et Biophysica Acta-Biomembranes*. 2016, **1858**(6), 1288-1297. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2016.03.003>

MATYSKA LIŠKOVÁ, P., FIŠER, R., MACEK, P., CHMELÍK, J., SÝKORA, J., BEDNÁROVÁ, L., KONOPÁSEK, I., BUMBA, L. Probing the Ca²⁺-assisted pi-pi interaction during Ca²⁺-dependent protein folding. *Soft Matter*. 2016, **12**(2), 531-541. ISSN 1744-683X. E-ISSN 1744-6848. Dostupné z: <https://doi.org/10.1039/c5sm01796c>

MELCROVÁ, A., KESSLER, J., BOUŘ, P., KAMINSKÝ, J. Simulation of Raman optical activity of multi-component monosaccharide samples. *Physical Chemistry Chemical Physics*. 2016, **18**(3), 2130-2142. ISSN 1463-9076. E-ISSN 1463-9084. Dostupné z: <https://doi.org/10.1039/c5cp04111b>

MELCROVÁ, A., POKORNÁ, Š., PULLANCHERY, S., KOHAGEN, M., JURKIEWICZ, P., HOF, M., JUNGWIRTH, P., CREMER, P. S., CWIKLIK, L. The complex nature of calcium cation interactions with phospholipid bilayers. *Scientific Reports*. 2016, **6**(DEC 2016), 38035. ISSN 2045-2322. E-ISSN 2045-2322. Dostupné z: <https://doi.org/10.1038/srep38035>

OLŽYŇSKA, A., ZUBEK, M., ROESELOVÁ, M., KORCHOWIEC, J., CWIKLIK, L. Mixed DPPC/POPC Monolayers: All-atom Molecular Dynamics Simulations and Langmuir Monolayer Experiments. *Biochimica Et Biophysica Acta-Biomembranes*. 2016, **1858**(12), 3120-3130. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2016.09.015>

PRUCHNIK, H., KRAL, T., PORADOWSKI, D., DRYNDA, A., OBIŇSKA-MRUKOWICZ, B., HOF, M. New cytotoxic butyltin complexes with 2-sulfobenzoic acid: Molecular interaction with lipid bilayers and DNA as well as in vitro anticancer activity. *Chemico-Biological Interactions*. 2016, **243**(JAN 2016), 107-118. ISSN 0009-2797. E-ISSN 1872-7786. Dostupné z: <https://doi.org/10.1016/j.cbi.2015.11.007>

ŠACHL, R., BERGSTRAND, J., WIDENGREN, J., HOF, M. Fluorescence correlation spectroscopy diffusion laws in the presence of moving nanodomains. *Journal of Physics D-Applied Physics*. 2016, **49**(11), 114002. ISSN 0022-3727. E-ISSN 1361-6463. Dostupné z: <https://doi.org/10.1088/0022-3727/49/11/114002>

VOGL, F., HUMPOLÍČKOVÁ, J., AMARO, M. M., KOLLER, D., KÖFELER, H., ZENZMEIER, E., HOF, M., HERMETTER, A. Role of protein kinase C δ in apoptotic signaling of oxidized phospholipids in RAW 264.7 macrophages. *Biochimica Et Biophysica Acta-Molecular and Cell Biology of Lipids*. 2016, **1861**(4), 320-330. ISSN 1388-1981. E-ISSN 1879-2618. Dostupné z: <https://doi.org/10.1016/j.bbalip.2015.12.009>

AMARO, M. M., BREZOVSKÝ, J., KOVÁČOVÁ, S., SÝKORA, J., BEDNÁŘ, D., NĚMEC, V., LIŠKOVÁ, V., KURUMBANG, N. P., BEERENS, K., CHALOUPKOVÁ, R., PARUCH, K., HOF, M., DAMBORSKÝ, J. Site-Specific Analysis of Protein Hydration Based on Unnatural Amino Acid Fluorescence. *Journal of the American Chemical Society*. 2015, **137**(15), 4988-4992. ISSN 0002-7863. E-ISSN 1520-5126. Dostupné z: <https://doi.org/10.1021/jacs.5b01681>

BREJCHOVÁ, J., SÝKORA, J., OSTAŠOV, P., MERTA, L., ROUBALOVÁ, L., JANÁČEK, J., HOF, M., SVOBODA, P. TRH-receptor mobility and function in intact and cholesterol-depleted plasma membrane of HEK293 cells stably expressing TRH-R-eGFP. *Biochimica Et Biophysica Acta-Biomembranes*. 2015, **1848**(3), 781-796. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2014.11.029>

KOUKALOVÁ, A., POKORNÁ, Š., FIŠER, R., KOPECKÝ, J., V., HUMPOLÍČKOVÁ, J., ČERNÝ, J., HOF, M. Membrane activity of the pentaene macrolide didehydroroflomycoin in 2 model lipid bilayers. *Biochimica Et Biophysica Acta-Biomembranes*. 2015, **1848**(2), 444-452. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2014.10.038>

KULIG, W., JURKIEWICZ, P., OLŽYŇSKA, A., TYNKKYNNEN, J., JAVANAINEN, M., MANNA, M., ROG, T., HOF, M., VATTULAINEN, I., JUNGWIRTH, P. Experimental determination and computational interpretation of biophysical properties of lipid bilayers enriched by cholesterol hemisuccinate. *Biochimica Et Biophysica Acta-Biomembranes*. 2015, **1848**(2), 422-432. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2014.10.032>

KULIG, W., OLŽYŇSKA, A., JURKIEWICZ, P., KANTOLA, A. M., KOMULAINEN, S., MANNA, M., POURMOUSA, M., VAZDAR, M., CWIKLIK, L., ROG, T., KHELASHVILI, G., HARRIES, D., TELKKI, V. - V., HOF, M., VATTULAINEN, I., JUNGWIRTH, P. Cholesterol under oxidative stress — How lipid membranes sense oxidation as cholesterol is being replaced by oxysterols. *Free Radical Biology and Medicine*. 2015, **84**(JUL 2015), 30-41. ISSN 0891-5849. E-ISSN 1873-4596. Dostupné z: <https://doi.org/10.1016/j.freeradbiomed.2015.03.006>

LOIZEAU, D., JURKIEWICZ, P., AYDOGAN, G., PHILIMONENKO, A., MAHFOUDHI, S., HOZÁK, P., MAROTO, A., COUTHON-COURVES, H., JAFFRES, P.-A., DESCHAMPS, L., GIAMARCHI, P., HOF, M. Biophysical properties of cationic lipophosphoramidates: Vesicle morphology, bilayer hydration and dynamics. *Colloids and Surfaces B-Biointerfaces*. 2015, **136**(DEC 2015), 192-200. ISSN 0927-7765. E-ISSN 1873-4367. Dostupné z:

<https://doi.org/10.1016/j.colsurfb.2015.09.012>

MÉNOVÁ, P., DZIUBA, D., GÜIXENS-GALLARDO, P., JURKIEWICZ, P., HOF, M., HOCEK, M. Fluorescence Quenching in Oligonucleotides Containing 7-Substituted 7-Deazaguanine Bases Prepared by the Nicking Enzyme Amplification Reaction. *Bioconjugate Chemistry*. 2015, **26**(2), 361-366. ISSN 1043-1802. E-ISSN 1520-4812. Dostupné z: <https://doi.org/10.1021/acs.bioconjchem.5b00006>

PARKKILA, P., ŠTEFL, M., OLŽYŇSKA, A., HOF, M., KINNUNEN, P. K. J. Phospholipid lateral diffusion in phosphatidylcholine-sphingomyelin-cholesterol monolayers; Effects of oxidatively truncated phosphatidylcholines. *Biochimica Et Biophysica Acta-Biomembranes*. 2015, **1848**(1), 167-173. ISSN 0005-2736. E-ISSN 1879-2642. Dostupné z: <https://doi.org/10.1016/j.bbamem.2014.10.025>

ROUBALOVÁ, L., VOŠAHLÍKOVÁ, M., BREJCHOVÁ, J., SÝKORA, J., RUDAJEV, V., SVOBODA, P. High Efficacy but Low Potency of delta-Opioid Receptor-G Protein Coupling in Brij-58-Treated, Low-Density Plasma Membrane Fragments. *PLoS ONE*. 2015, **10**(8), e0135664. ISSN 1932-6203. E-ISSN 1932-6203. Dostupné z: <https://doi.org/10.1371/journal.pone.0135664>

ŠACHL, R., AMARO, M. M., AYDOGAN, G., KOUKALOVÁ, A., MIKHAYLOV, I. I., BOLDYREV, I. A., HUMPOLÍČKOVÁ, J., HOF, M. On multivalent receptor activity of GM1 in cholesterol containing membranes. *Biochimica Et Biophysica Acta-Molecular Cell Research*. 2015, **1853**(4), 850-857. ISSN 0167-4889. E-ISSN 1879-2596. Dostupné z: <https://doi.org/10.1016/j.bbamcr.2014.07.016>

TOMEK, P., HROUZEK, P., KUZMA, M., SÝKORA, J., FIŠER, R., ČERNÝ, J., NOVÁK, P., BÁRTOVÁ, S., ŠIMEK, P., HOF, M., KAVAN, D., KOPECKÝ, J. Cytotoxic Lipopeptide Muscotoxin A, Isolated from Soil Cyanobacterium *Desmonostoc muscorum*, Permeabilizes Phospholipid Membranes by Reducing Their Fluidity. *Chemical Research in Toxicology*. 2015, **28**(2), 216-224. ISSN 0893-228X. E-ISSN 1520-5010. Dostupné z: <https://doi.org/10.1021/tx500382b>
