

- Donadei V, Koivuluoto H, Sarlin E, Vuoristo P. 2020. Lubricated icephobic coatings prepared by flame spraying with hybrid feedstock injection. *Surface and Coatings Technology*. 403. <https://doi.org/10.1016/j.surfcoat.2020.126396>
- Sarlin E, Honkanen M, Lindgren M, Laihonon P, Juutilainen M, Vippola M, Vuorinen J. 2020. The effect of substrate pre-treatment on durability of rubber-stainless steel adhesion. *Surfaces and Interfaces*. 21. <https://doi.org/10.1016/j.surfin.2020.100646>
- Baratto C, Golovanova V, Faglia G, Hakola H, Niemi T, Tkachenko N, Nazarchuk B, Golovanov V. 2020. On the alignment of ZnO nanowires by Langmuir – Blodgett technique for sensing application. *Applied Surface Science*. 528. <https://doi.org/10.1016/j.apsusc.2020.146959>
- Tan C, Ceballos G, Kasabov N, Subramaniyam NP. 2020. Fusionsense: Emotion classification using feature fusion of multimodal data and deep learning in a brain-inspired spiking neural network. *Sensors (Switzerland)*. 20(18). <https://doi.org/10.3390/s20185328>
- Olżyńska A, Kulig W, Mikkolainen H, Czerniak T, Jurkiewicz P, Cwiklik L, Rog T, Hof M, Jungwirth P, Vattulainen I. 2020. Tail-Oxidized Cholesterol Enhances Membrane Permeability for Small Solutes. *Langmuir*. 36(35):10438-10447. <https://doi.org/10.1021/acs.langmuir.0c01590>
- Kaleva A, Tassaing T, Saarimaa V, Le Bourdon G, Väisänen P, Markkula A, Levänen E. 2020. Formation of corrosion products on zinc in wet supercritical and subcritical CO<sub>2</sub>: In-situ spectroscopic study. *Corrosion Science*. 174. <https://doi.org/10.1016/j.corsci.2020.108850>
- Azemati H, Jam F, Ghorbani M, Dehmer M, Ebrahimpour R, Ghanbaran A, Emmert-Streib F. 2020. The role of symmetry in the aesthetics of residential building façades using cognitive science methods. *Symmetry*. 12(9). <https://doi.org/10.3390/sym12091438>
- He H, Chen X, Mehmood A, Raivio L, Huttunen H, Raunonen P, Virkki J. 2020. ClothFace: A Batteryless RFID-Based Textile Platform for Handwriting Recognition. *Sensors (Basel, Switzerland)*. 20(17). <https://doi.org/10.3390/s20174878>
- Truong KN, Rautiainen JM, Rissanen K, Puttreddy R. 2020. The C-I<sup>⋯</sup>O-N<sup>+</sup> Halogen Bonds with Tetraiodoethylene and Aromatic N-Oxides. *Crystal Growth and Design*. 20(8):5330-5337. <https://doi.org/10.1021/acs.cgd.0c00560>
- Lahikainen M, Zeng H, Priimagi A. 2020. Design principles for non-reciprocal photomechanical actuation. *Soft Matter*. 16(25):5951-5958. <https://doi.org/10.1039/d0sm00624f>
- Ojha N, Szczodra A, Boetti NG, Massera J, Petit L. 2020. Nucleation and growth behavior of Er<sup>3+</sup> doped oxyfluorophosphate glasses. *RSC Advances*. 10(43):25703-25716. <https://doi.org/10.1039/d0ra04681g>
- Sharma RO, Rantala TT, Hoggan PE. 2020. Selective hydrogen production at Pt(111) investigated by Quantum Monte Carlo methods for metal catalysis. *International Journal of Quantum Chemistry*. 120(11). <https://doi.org/10.1002/qua.26198>
- Arvani M, Keskinen J, Railanmaa A, Siljander S, Björkqvist T, Tuukkanen S, Lupo D. 2020. Additive manufacturing of monolithic supercapacitors with biopolymer separator. *Journal of Applied Electrochemistry*. 50(6):689-697. <https://doi.org/10.1007/s10800-020-01423-2>
- Isca VMS, Ferreira RJ, Garcia C, Monteiro CM, Dinic J, Holmstedt S, André V, Pesic M, Dos Santos DJVA, Candeias NR, Afonso CAM, Rijo P. 2020. Molecular Docking Studies of Royleanone Diterpenoids from *Plectranthus* spp. as P-Glycoprotein Inhibitors. *ACS MEDICINAL CHEMISTRY LETTERS*. 11(5):839-845. <https://doi.org/10.1021/acsmedchemlett.9b00642>

- Alanen J, Isotalo M, Kuittinen N, Simonen P, Martikainen S, Kuuluvainen H, Honkanen M, Lehtoranta K, Nyssönen S, Vesala H, Timonen H, Aurela M, Keskinen J, Rönkkö T. 2020. Physical Characteristics of Particle Emissions from a Medium Speed Ship Engine Fueled with Natural Gas and Low-Sulfur Liquid Fuels. *Environmental Science and Technology*. 54(9):5376-5384. <https://doi.org/10.1021/acs.est.9b06460>
- Javanainen M, Ollila OHS, Martinez-Seara H. 2020. Rotational Diffusion of Membrane Proteins in Crowded Membranes. *Journal of Physical Chemistry B*. 124(15):2994-3001. <https://doi.org/10.1021/acs.jpcc.0c00884>
- Haavisto JM, Kokko ME, Lakaniemi AM, Sulonen MLK, Puhakka JA. 2020. The effect of start-up on energy recovery and compositional changes in brewery wastewater in bioelectrochemical systems. *BIOELECTROCHEMISTRY*. 132. <https://doi.org/10.1016/j.bioelechem.2019.107402>
- Twum K, Rautiainen JM, Yu S, Truong KN, Feder J, Rissanen K, Puttreddy R, Beyeh NK. 2020. Host-Guest Interactions of Sodiumsulfonatomethyleneresorcinarene and Quaternary Ammonium Halides: An Experimental-Computational Analysis of the Guest Inclusion Properties. *Crystal Growth and Design*. 20(4):2367-2376. <https://doi.org/10.1021/acs.cgd.9b01540>
- Young DC, Tasior M, Laurent AD, Dobrzycki Ł, Cyrański MK, Tkachenko N, Jacquemin D, Gryko DT. 2020. Photostable orange-red fluorescent unsymmetrical diketopyrrolopyrrole-BF<sub>2</sub> hybrids. *Journal of Materials Chemistry C*. 8(23):7708-7717. <https://doi.org/10.1039/d0tc01202e>
- Aisala H, Manninen H, Laaksonen T, Linderborg KM, Myoda T, Hopia A, Sandell M. 2020. Linking volatile and non-volatile compounds to sensory profiles and consumer liking of wild edible Nordic mushrooms. *Food Chemistry*. 304. <https://doi.org/10.1016/j.foodchem.2019.125403>
- Viljanen J, Kalmankoski K, Contreras V, Sarin JK, Sorvajärvi T, Kinnunen H, Enestam S, Toivonen J. 2020. Sequential Collinear Photofragmentation and Atomic Absorption Spectroscopy for Online Laser Monitoring of Triatomic Metal Species. *Sensors (Basel, Switzerland)*. 20(2). <https://doi.org/10.3390/s20020533>
- Chronopoulos A, Thorpe SD, Cortes E, Lachowski D, Rice AJ, Mykuliak VV, Rog T, Lee DA, Hytönen VP, del Río Hernández AE. 2020. Syndecan-4 tunes cell mechanics by activating the kindlin-integrin-RhoA pathway. *Nature Materials*. <https://doi.org/10.1038/s41563-019-0567-1>
- Pasanen HP, Vivo P, Canil L, Hempel H, Unold T, Abate A, Tkachenko NV. 2020. Monitoring Charge Carrier Diffusion across a Perovskite Film with Transient Absorption Spectroscopy. *The journal of physical chemistry letters*. 11(2):445-450. <https://doi.org/10.1021/acs.jpclett.9b03427>
- Chakraborty S, Rene ER, Lens PNL, Rintala J, Veiga MC, Kennes C. 2020. Effect of tungsten and selenium on C<sub>1</sub> gas bioconversion by an enriched anaerobic sludge and microbial community analysis. *Chemosphere*. 250. <https://doi.org/10.1016/j.chemosphere.2020.126105>
- Jönkkäri I, Poliakova V, Mylläri V, Anderson R, Andersson M, Vuorinen J. 2020. Compounding and characterization of recycled multilayer plastic films. *Journal of Applied Polymer Science*. <https://doi.org/10.1002/app.49101>
- Manninen H, Durandin N, Hopia A, Vuorimaa-Laukkanen E, Laaksonen T. 2020. Taste compound – Nanocellulose interaction assessment by fluorescence indicator displacement assay. *Food Chemistry*. 318. <https://doi.org/10.1016/j.foodchem.2020.126511>
- Tofanello A, Freitas ALM, Carvalho WM, Salminen T, Niemi T, Souza FL. 2020. Hematite Surface Modification toward Efficient Sunlight-Driven Water Splitting Activity: The Role of Gold Nanoparticle Addition. *Journal of Physical Chemistry C*. <https://doi.org/10.1021/acs.jpcc.9b11966>
- Varis T, Suhonen T, Jokipii M, Vuoristo P. 2020. Influence of powder properties on residual stresses formed in high-pressure liquid fuel HVOF sprayed WC-CoCr coatings. *Surface and Coatings Technology*. 388. <https://doi.org/10.1016/j.surfcoat.2020.125604>

Sankari A, Strählman C, Sankari R, Partanen L, Laksman J, Kettunen JA, Galván IF, Lindh R, Malmqvist PÅ, Sorensen SL. 2020. Non-radiative decay and fragmentation in water molecules after a 1-1 4 a 1 excitation and core ionization studied by electron-energy-resolved electron-ion coincidence spectroscopy. *Journal of Chemical Physics*. 152(7). <https://doi.org/10.1063/1.5141414>

Beter J, Schritteser B, Maroh B, Sarlin E, Fuchs PF, Pinter G. 2020. Comparison and impact of different fiber debond techniques on fiber reinforced flexible composites. *Polymers*. 12(2). <https://doi.org/10.3390/polym12020472>

Bączkiewicz J, Malaska M, Pajunen S, Alanen M, Heinisuo M. 2020. Experimental study on axially loaded square hollow section T-joints under fire conditions. *FIRE SAFETY JOURNAL*. 114. <https://doi.org/10.1016/j.firesaf.2020.102993>

Larnimaa S, Halonen L, Karhu J, Tomberg T, Metsälä M, Genoud G, Hieta T, Bell S, Vainio M. 2020. High-resolution analysis of the  $\nu_3$  band of radiocarbon methane  $^{14}\text{CH}_4$ . *Chemical Physics Letters*. 750. <https://doi.org/10.1016/j.cplett.2020.137488>

Khvorost TA, Beliaev LY, Potalueva E, Laptenkova AV, Selyutin AA, Bogachev NA, Skripkin MY, Ryazantsev MN, Tkachenko N, Mereshchenko AS. 2020. Ultrafast Photochemistry of the  $[\text{Cr}(\text{NCS})_6]^{3-}$  Complex in Dimethyl Sulfoxide and Dimethylformamide upon Excitation into Ligand-Field Electronic State. *Journal of Physical Chemistry B*. 124(18):3724-3733. <https://doi.org/10.1021/acs.jpcc.0c00088>

Moormann W, Tellkamp T, Stadler E, Röhricht F, Näther C, Puttreddy R, Rissanen K, Gescheidt G, Herges R. 2020. Efficient Conversion of Light to Chemical Energy: Directional, Chiral Photoswitches with Very High Quantum Yields. *Angewandte Chemie - International Edition*. 59(35):15081-15086. <https://doi.org/10.1002/anie.202005361>

Oliveira LMC, Koivisto H, Iwakiri IGI, Loureiro JM, Ribeiro AM, Nogueira IBR. 2020. Modelling of a pressure swing adsorption unit by deep learning and artificial Intelligence tools. *Chemical Engineering Science*. 224. <https://doi.org/10.1016/j.ces.2020.115801>

Eklund A, Zhang H, Zeng H, Priimägi A, Ikkala O. 2020. Fast Switching of Bright Whiteness in Channeled Hydrogel Networks. *Advanced Functional Materials*. <https://doi.org/10.1002/adfm.202000754>

Holmstedt S, Candeias NR. 2020. A concise synthesis of carbasugars isolated from *Streptomyces lincolnensis*. *Tetrahedron*. <https://doi.org/10.1016/j.tet.2020.131346>

Taimoory SM, Twum K, Dashti M, Pan F, Lahtinen M, Rissanen K, Puttreddy R, Trant JF, Beyeh NK. 2020. Bringing a Molecular Plus One: Synergistic Binding Creates Guest-Mediated Three-Component Complexes. *Journal of Organic Chemistry*. 85(9):5884-5894. <https://doi.org/10.1021/acs.joc.0c00220>

Wani OM, Schenning APHJ, Priimägi A. 2020. A bifacial colour-tunable system via combination of a cholesteric liquid crystal network and hydrogel. *Journal of Materials Chemistry C*. 8(30):10191-10196. <https://doi.org/10.1039/d0tc02189j>

Palmolahti L, Ali-Löytty H, Khan R, Saari J, Tkachenko NV, Valden M. 2020. Modification of Surface States of Hematite-Based Photoanodes by Submonolayer of  $\text{TiO}_2$  for Enhanced Solar Water Splitting. *Journal of Physical Chemistry C*. 124(24):13094-13101. <https://doi.org/10.1021/acs.jpcc.0c00798>

Karjalainen M, Kontunen A, Mäkelä M, Anttalainen O, Vehkaoja A, Oksala N, Roine A. 2020. Recovery characteristics of different tube materials in relation to combustion products. *International Journal for Ion Mobility Spectrometry*. <https://doi.org/10.1007/s12127-020-00266-z>

Wang M, Chen D, Xiao M, Ye Q, Stolzenburg D, Hofbauer V, Ye P, Vogel AL, Mauldin RL, Amorim A, Baccarini A, Baumgartner B, Brilke S, Dada L, Dias A, Duplissy J, Finkenzeller H, Garmash O, He XC, Hoyle CR, Kim C, Kvashnin A, Lehtipalo K, Fischer L, Molteni U, Petäjä T, Pospisilova V, Quéléver LLJ, Rissanen M, Simon M, Tauber C, Tomé A, Wagner AC, Weitz L, Volkamer R, Winkler PM, Kirkby J, Worsnop DR, Kulmala M, Baltensperger U, Dommen J, El-Haddad I, Donahue NM. 2020. Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds.

Environmental Science and Technology. 54(13):7911-7921. <https://doi.org/10.1021/acs.est.0c02100>

Hajdu-Rahkama R, Özkaya B, Lakaniemi AM, Puhakka JA. 2020. Kinetics and modelling of thiosulphate biotransformations by haloalkaliphilic Thioalkalivibrio versutus. Chemical Engineering Journal. 401. <https://doi.org/10.1016/j.cej.2020.126047>

Shakun A, Sarlin E, Vuorinen J. 2020. Energy dissipation in natural rubber latex films: The effect of stabilizers, leaching and acetone-treatment. Journal of Applied Polymer Science. <https://doi.org/10.1002/app.49609>

Evans DM, Holstad TS, Mosberg AB, Småbråten DR, Vullum PE, Dadlani AL, Shapovalov K, Yan Z, Bourret E, Gao D, Akola J, Torgersen J, van Helvoort ATJ, Selbach SM, Meier D. 2020. Conductivity control via minimally invasive anti-Frenkel defects in a functional oxide. Nature Materials. <https://doi.org/10.1038/s41563-020-0765-x>

Pelkonen A, Mzezewa R, Sukki L, Ryyänen T, Kreutzer J, Hyvärinen T, Vinogradov A, Aarnos L, Lekkala J, Kallio P, Narkilahti S. 2020. A modular brain-on-a-chip for modelling epileptic seizures with functionally connected human neuronal networks. Biosensors and Bioelectronics. 168. <https://doi.org/10.1016/j.bios.2020.112553>

Jowett GM, Norman MDA, Yu TTL, Rosell Arévalo P, Hoogland D, Lust ST, Read E, Hamrud E, Walters NJ, Niazi U, Chung MWH, Marciano D, Omer OS, Zabinski T, Danovi D, Lord GM, Hilborn J, Evans ND, Dreiss CA, Bozec L, Oommen OP, Lorenz CD, da Silva RMP, Neves JF, Gentleman E. 2020. ILC1 drive intestinal epithelial and matrix remodelling. Nature Materials. <https://doi.org/10.1038/s41563-020-0783-8>

Ometov A, Bezzateev S, Voloshina N, Masek P, Komarov M. 2019. Environmental monitoring with distributed mesh networks: An overview and practical implementation perspective for urban scenario. Sensors (Switzerland). 19(24). <https://doi.org/10.3390/s19245548>

Zhang H, Zeng H, Priimägi A, Ikkala O. 2019. Programmable responsive hydrogels inspired by classical conditioning algorithm. Nature Communications. 10(1). <https://doi.org/10.1038/s41467-019-11260-3>

Lowe SJ, Partridge DG, Davies JF, Wilson KR, Topping D, Riipinen I. 2019. Key drivers of cloud response to surface-active organics. Nature Communications. 10(1). <https://doi.org/10.1038/s41467-019-12982-0>

Roldin P, Ehn M, Kurtén T, Olenius T, Rissanen MP, Sarnela N, Elm J, Rantala P, Hao L, Hyttinen N, Heikkinen L, Worsnop DR, Pichelstorfer L, Xavier C, Clusius P, Öström E, Petäjä T, Kulmala M, Vehkamäki H, Virtanen A, Riipinen I, Boy M. 2019. The role of highly oxygenated organic molecules in the Boreal aerosol-cloud-climate system. Nature Communications. 10(1). <https://doi.org/10.1038/s41467-019-12338-8>

Shevkunov I, Katkovnik V, Claus D, Pedrini G, Petrov NV, Egiazarian K. 2019. Spectral object recognition in hyperspectral holography with complex-domain denoising. Sensors (Switzerland). 19(23). <https://doi.org/10.3390/s19235188>

Poikkimäki M, Koljonen V, Leskinen N, Närhi M, Kangasniemi O, Kausiala O, Dal Maso M. 2019. Nanocluster Aerosol Emissions of a 3D Printer. Environmental Science and Technology. 53(23):13618–13628. <https://doi.org/10.1021/acs.est.9b05317>

Ye Q, Wang M, Hofbauer V, Stolzenburg D, Chen D, Schervish M, Vogel A, Mauldin RL, Baalbaki R, Brilke S, Dada L, Dias A, Duplissy J, El Haddad I, Finkenzeller H, Fischer L, He X, Kim C, Kürten A, Lamkaddam H, Lee CP, Lehtipalo K, Leiminger M, Manninen HE, Marten R, Mentler B, Partoll E, Petäjä T, Rissanen M, Schobesberger S, Schuchmann S, Simon M, Tham YJ, Vazquez-Pufleau M, Wagner AC, Wang Y, Wu Y, Xiao M, Baltensperger U, Curtius J, Flagan R, Kirkby J, Kulmala M, Volkamer R, Winkler PM, Worsnop D, Donahue NM. 2019. Molecular Composition and Volatility of Nucleated Particles from  $\alpha$ -Pinene Oxidation between -50 °C and +25 °C. Environmental Science and Technology. 53(21):12357-12365. <https://doi.org/10.1021/acs.est.9b03265>

Tomkowski R, Sorsa A, Santa-Aho S, Lundin P, Vippola M. 2019. Statistical evaluation of barkhausen noise testing (BNT) for ground samples. Sensors (Switzerland). 19(21). <https://doi.org/10.3390/s19214716>

Saegusa T, Sakai H, Nagashima H, Kobori Y, Tkachenko NV, Hasobe T. 2019. Controlled Orientations of Neighboring Tetracene Units by Mixed Self-Assembled Monolayers on Gold Nanoclusters for High-Yield and Long-Lived Triplet Excited States through Singlet Fission. *Journal of the American Chemical Society*. 141(37):14720-14727. <https://doi.org/10.1021/jacs.9b06567>

Haavisto J, Dessì P, Chatterjee P, Honkanen M, Noori MT, Kokko M, Lakaniemi AM, Lens PNL, Puhakka JA. 2019. Effects of anode materials on electricity production from xylose and treatability of TMP wastewater in an up-flow microbial fuel cell. *Chemical Engineering Journal*. 372:141-150. <https://doi.org/10.1016/j.cej.2019.04.090>

Reshef O, Saad-Bin-Alam M, Huttunen MJ, Carlow G, Sullivan BT, Ménard JM, Dolgaleva K, Boyd RW. 2019. Multiresonant High-Q Plasmonic Metasurfaces. *Nano Letters*. 19(9):6429-6434. <https://doi.org/10.1021/acs.nanolett.9b02638>

Karjalainen P, Rönkkö T, Simonen P, Ntziachristos L, Juuti P, Timonen H, Teinilä K, Saarikoski S, Saveljeff H, Lauren M, Happonen M, Matilainen P, Maunula T, Nuottimäki J, Keskinen J. 2019. Strategies To Diminish the Emissions of Particles and Secondary Aerosol Formation from Diesel Engines. *Environmental science & technology*. 53(17):10408-10416. <https://doi.org/10.1021/acs.est.9b04073>

Calejo MT, Haapala A, Skottman H, Kellomäki M. 2019. Porous polybutylene succinate films enabling adhesion of human embryonic stem cell-derived retinal pigment epithelial cells (hESC-RPE). *European Polymer Journal*. 118:78-87. <https://doi.org/10.1016/j.eurpolymj.2019.05.041>

Poojari C, Wilkosz N, Lira RB, Dimova R, Jurkiewicz P, Petka R, Kepczynski M, Róg T. 2019. Behavior of the DPH fluorescence probe in membranes perturbed by drugs. *Chemistry and Physics of Lipids*. 223. <https://doi.org/10.1016/j.chemphyslip.2019.104784>

Wang S, Nawale GN, Oommen OP, Hilborn J, Varghese OP. 2019. Influence of ions to modulate hydrazone and oxime reaction kinetics to obtain dynamically cross-linked hyaluronic acid hydrogels. *Polymer Chemistry*. 10(31):4322-4327. <https://doi.org/10.1039/c9py00862d>

Kiilakoski J, Langlade C, Koivuluoto H, Vuoristo P. 2019. Characterizing the micro-impact fatigue behavior of APS and HVOF-sprayed ceramic coatings. *Surface and Coatings Technology*. 371:245-254. <https://doi.org/10.1016/j.surfcoat.2018.10.097>

Fantozzi D, Matikainen V, Uusitalo M, Koivuluoto H, Vuoristo P. 2019. Chlorine induced high-temperature corrosion mechanisms in HVOF and HVOF sprayed Cr<sub>3</sub>C<sub>2</sub>-based hardmetal coatings. *Corrosion Science*. <https://doi.org/10.1016/j.corsci.2019.108166>

Schraik D, Varvia P, Korhonen L, Rautiainen M. 2019. Bayesian inversion of a forest reflectance model using Sentinel-2 and Landsat 8 satellite images. *JOURNAL OF QUANTITATIVE SPECTROSCOPY AND RADIATIVE TRANSFER*. 233:1-12. <https://doi.org/10.1016/j.jqsrt.2019.05.013>

Solovyev AI, Mikheyli AV, Plyusnin VF, Shubin AA, Grivin VP, Larionov SV, Tkachenko NV, Lemmetyinen H. 2019. Photochemistry of dithiophosphate Ni(S<sub>2</sub>P(i-Bu)<sub>2</sub>)<sub>2</sub> complex in CCl<sub>4</sub>. Transient species and TD-DFT calculations. *Journal of Photochemistry and Photobiology A: Chemistry*. 381. <https://doi.org/10.1016/j.jphotochem.2019.111857>

Matikainen V, Rubio Peregrina S, Ojala N, Koivuluoto H, Schubert J, Houdková , Vuoristo P. 2019. Erosion wear performance of WC-10Co4Cr and Cr<sub>3</sub>C<sub>2</sub>-25NiCr coatings sprayed with high-velocity thermal spray processes. *Surface and Coatings Technology*. 370:196-212. <https://doi.org/10.1016/j.surfcoat.2019.04.067>

Kezilebieke S, Žitko R, Dvorak M, Ojanen T, Liljeroth P. 2019. Observation of Coexistence of Yu-Shiba-Rusinov States and Spin-Flip Excitations. *Nano Letters*. 19(7):4614-4619. <https://doi.org/10.1021/acs.nanolett.9b01583>

Abada A, Abbrescia M, AbdusSalam SS, Abdyukhanov I, Abelleira Fernandez J, Abramov A, Aburaia M, Acar AO, Adzic PR, Agrawal P, Aguilar-Saavedra JA, Aguilera-Verdugo JJ, Aiba M, Aichinger I, Aielli G, Akay A, Akhundov A, Aksakal H, Albacete JL, Albergo S, Alekou A, Aleksa M, Aleksan R, Alemany Fernandez RM, Alexahin Y, Alía RG, Alioli S, Alipour Tehrani N, Allanach BC, Allport PP, Altınlı M, Altmannshofer W, Ambrosio G, Amorim D, Amstutz O, Anderlini L, Andreatza A, Andreini M, Andriatis A, Andris C, Andronic A, Angelucci M, Antinori F, Antipov SA, Antonelli M, Antonello M, Lehtinen T, Penttinen JP, Salmi T, Stenvall A. 2019. FCC-hh: The Hadron Collider: Future Circular Collider Conceptual Design Report Volume 3. *European Physical Journal: Special Topics*. 228(4):755-1107. <https://doi.org/10.1140/epjst/e2019-900087-0>

Ghalibaf M, Doddapaneni TRKC, Alén R. 2019. Pyrolytic behavior of lignocellulosic-based polysaccharides. *Journal of Thermal Analysis and Calorimetry*. 137(1):121-131. <https://doi.org/10.1007/s10973-018-7919-y>

Paananen RO, Javanainen M, Holopainen JM, Vattulainen I. 2019. Crystalline Wax Esters Regulate the Evaporation Resistance of Tear Film Lipid Layers Associated with Dry Eye Syndrome. *Journal of Physical Chemistry Letters*. 10(14):3893-3898. <https://doi.org/10.1021/acs.jpcllett.9b01187>

Banerjee SS, Hait S, Natarajan TS, Wießner S, Stöckelhuber KW, Jehnichen D, Janke A, Fischer D, Heinrich G, Busfield JJC, Das A. 2019. Water-Responsive and Mechanically Adaptive Natural Rubber Composites by in Situ Modification of Mineral Filler Structures. *Journal of Physical Chemistry B*. 123(24):5168-5175. <https://doi.org/10.1021/acs.jpccb.9b02125>

Hilka J, Koivusalo E, Puustinen J, Suomalainen S, Guina M. 2019. Epitaxial phases of high Bi content GaSbBi alloys. *Journal of Crystal Growth*. 516:67-71. <https://doi.org/10.1016/j.jcrysgro.2019.03.028>

Sautter JD, Xu L, Miroshnichenko AE, Lysevych M, Volkovskaya I, Smirnova DA, Camacho-Morales R, Zangeneh Kamali K, Karouta F, Vora K, Tan HH, Kauranen M, Staude I, Jagadish C, Neshev DN, Rahmani M. 2019. Tailoring Second-Harmonic Emission from (111)-GaAs Nanoantennas. *Nano Letters*. 19(6):3905-3911. <https://doi.org/10.1021/acs.nanolett.9b01112>

Lolicato F, Joly L, Martinez-Seara H, Fragneto G, Scoppola E, Baldelli Bombelli F, Vattulainen I, Akola J, Maccarini M. 2019. The Role of Temperature and Lipid Charge on Intake/Uptake of Cationic Gold Nanoparticles into Lipid Bilayers. *Small*. 15(23). <https://doi.org/10.1002/sml.201805046>

Sariola V. 2019. Analytical Expressions for Spring Constants of Capillary Bridges and Snap-in Forces of Hydrophobic Surfaces. *Langmuir*. 35(22):7129-7135. <https://doi.org/10.1021/acs.langmuir.9b00152>

Lai Y, Zhang H, Sugano Y, Xie H, Kallio P. 2019. Correlation of Surface Morphology and Interfacial Adhesive Behavior between Cellulose Surfaces: Quantitative Measurements in Peak-Force Mode with the Colloidal Probe Technique. *Langmuir*. 35(22):7312-7321. <https://doi.org/10.1021/acs.langmuir.8b03503>

Ali I, Suominen O, Gotchev A, Morales ER. 2019. Methods for simultaneous robot-world-hand-eye calibration: A comparative study. *Sensors (Switzerland)*. 19(12). <https://doi.org/10.3390/s19122837>

Kekonen A, Bergelin M, Johansson M, Kumar Joon N, Bobacka J, Viik J. 2019. Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of H<sub>2</sub>O<sub>2</sub> Using Low-Intensity Direct Current. *Sensors*. 19(11). <https://doi.org/10.3390/s19112505>

Iyer S, Rissanen MP, Kurtén T. 2019. Reaction between Peroxy and Alkoxy Radicals Can Form Stable Adducts. *Journal of Physical Chemistry Letters*. 10(9):2051-2057. <https://doi.org/10.1021/acs.jpcllett.9b00405>

Gil-Gallegos S, Klages R, Solanpää J, Räsänen E. 2019. Energy-dependent diffusion in a soft periodic Lorentz gas. *European Physical Journal: Special Topics*. 228(1):143-160. <https://doi.org/10.1140/epjst/e2019-800136-8>

- Trainer DJ, Putilov AV, Wang B, Lane C, Saari T, Chang TR, Jeng HT, Lin H, Xi X, Nieminen J, Bansil A, Iavarone M. 2019. Moiré superlattices and 2D electronic properties of graphite/MoS<sub>2</sub> heterostructures. *Journal of Physics and Chemistry of Solids*. 128:325-330. <https://doi.org/10.1016/j.jpics.2017.10.034>
- Saari T, Nieminen J. 2019. Spin filtering in silicene by edges and chemically or electrically induced interfaces. *Journal of Physics and Chemistry of Solids*. 128:316-324. <https://doi.org/10.1016/j.jpics.2017.12.037>
- Itävuori P, Hulthén E, Yahyaei M, Vilkkio M. 2019. Mass balance control of crushing circuits. *Minerals Engineering*. 135:37-47. <https://doi.org/10.1016/j.mineng.2019.02.033>
- Kulig W, Korolainen H, Zatorska M, Kwolek U, Wydro P, Kepczynski M, Róg T. 2019. Complex Behavior of Phosphatidylcholine-Phosphatidic Acid Bilayers and Monolayers: Effect of Acyl Chain Unsaturation. *Langmuir*. 35(17):5944-5956. <https://doi.org/10.1021/acs.langmuir.9b00381>
- Puustinen J, Hilska J, Guina M. 2019. Analysis of GaAsBi growth regimes in high resolution with respect to As/Ga ratio using stationary MBE growth. *Journal of Crystal Growth*. 511:33-41. <https://doi.org/10.1016/j.jcrysgro.2019.01.010>
- Asikainen S, Paakinaho K, Kyhkynen AK, Hannula M, Malin M, Ahola N, Kellomäki M, Seppälä J. 2019. Hydrolysis and drug release from poly(ethylene glycol)-modified lactone polymers with open porosity. *European Polymer Journal*. 113:165-175. <https://doi.org/10.1016/j.eurpolymj.2019.01.056>
- Ometov A, Bezzateev S, Davydov V, Shchesniak A, Masek P, Lohan ES, Koucheryavy Y. 2019. Positioning information privacy in intelligent transportation systems: An overview and future perspective. *Sensors*. 19(7). <https://doi.org/10.3390/s19071603>
- Kerst T, Malmbeck R, Ial Banik NL, Toivonen J. 2019. Alpha radiation-induced luminescence by am-241 in aqueous nitric acid solution. *Sensors (Switzerland)*. 19(7). <https://doi.org/10.3390/s19071602>
- Gurtovenko AA, Javanainen M, Lolicato F, Vattulainen I. 2019. The Devil Is in the Details: What Do We Really Track in Single-Particle Tracking Experiments of Diffusion in Biological Membranes?. *Journal of Physical Chemistry Letters*. 10(5):1005-1011. <https://doi.org/10.1021/acs.jpcclett.9b00065>
- Pekkanen TT, Timonen RS, Lendvay G, Rissanen MP, Eskola AJ. 2019. Kinetics and thermochemistry of the reaction of 3-methylpropargyl radical with molecular oxygen. *PROCEEDINGS OF THE COMBUSTION INSTITUTE*. 37(1):299-306. <https://doi.org/10.1016/j.proci.2018.05.050>
- Kuroda K, Yazaki K, Tanaka Y, Akita M, Sakai H, Hasobe T, Tkachenko NV, Yoshizawa M. 2019. A Pentacene-based Nanotube Displaying Enriched Electrochemical and Photochemical Activities. *Angewandte Chemie - International Edition*. 58(4):1115-1119. <https://doi.org/10.1002/anie.201812976>
- Ruoko T-P, Hiltunen A, Iivonen T, Ulkuniemi R, Lahtonen K, Ali-Löytty H, Mizohata K, Valden M, Leskelä M, Tkachenko NV. 2019. Charge carrier dynamics in tantalum oxide overlayers and tantalum doped hematite photoanodes. *Journal of Materials Chemistry A*. 7(7):3206-3215. <https://doi.org/10.1039/C8TA09501A>
- Guglielmetti S, Santala V, Mangayil R, Ciranna A, Karp MT. 2019. O<sub>2</sub>-requiring molecular reporters of gene expression for anaerobic microorganisms. *Biosensors and Bioelectronics*. 123:1-6. <https://doi.org/10.1016/j.bios.2018.09.066>
- Levämäki H, Tian L-Y, Vitos L, Ropo M. 2019. An automated algorithm for reliable equation of state fitting of magnetic systems. *Computational Materials Science*. 156:121-128. <https://doi.org/10.1016/j.commatsci.2018.09.026>
- Shin M, Kim J, Jung YK, Ruoko T-P, Priimagi A, Walsh A, Shin B. 2019. Low-dimensional formamidinium lead perovskite architectures via controllable solvent intercalation. *Journal of Materials Chemistry C*. 7(13):3945-3951. <https://doi.org/10.1039/c9tc00379g>

Bhagyaraj S, Perumbilavil S, Udayabashkar R, Mangalaraja RV, Thomas S, Kalarikkal N, Oluwafemi OS. 2019. Tuning of nonlinear absorption in highly luminescent CdSe based quantum dots with core-shell and core/multi-shell architectures. *Physical Chemistry Chemical Physics*. 21(21):11424-11434. <https://doi.org/10.1039/c9cp00476a>

Mandal S, Tkachenko NV. 2019. Multiphoton Excitation of CsPbBr<sub>3</sub> Perovskite Quantum Dots (PQDs): How Many Electrons Can One PQD Donate to Multiple Molecular Acceptors?. *Journal of Physical Chemistry Letters*. 2775-2781. <https://doi.org/10.1021/acs.jpcclett.9b01045>

Lemougna PN, Yliniemi J, Ismailov A, Levänen E, Tanskanen P, Kinnunen P, Roning J, Illikainen M. 2019. Spodumene tailings for porcelain and structural materials: Effect of temperature (1050–1200°C) on the sintering and properties. *Minerals Engineering*. <https://doi.org/10.1016/j.mineng.2019.105843>

Eregowda T, Rene ER, Rintala J, Lens PNL. 2019. Volatile fatty acid adsorption on anion exchange resins: kinetics and selective recovery of acetic acid. *Separation Science and Technology (Philadelphia)*. <https://doi.org/10.1080/01496395.2019.1600553>

Anttalainen O, Puton J, Kontunen A, Karjalainen M, Kumpulainen P, Oksala N, Safaei Z, Roine A. 2019. Possible strategy to use differential mobility spectrometry in real time applications. *International Journal for Ion Mobility Spectrometry*. <https://doi.org/10.1007/s12127-019-00251-1>

Assoah B, Riihonen V, Vale JR, Valkonen A, Candeias NR. 2019. Synthesis of 6,12-disubstituted methanodibenzo[b,f][1,5]dioxocins: Pyrrolidine catalyzed self-condensation of 2'-Hydroxyacetophenones. *Molecules*. 24(13). <https://doi.org/10.3390/molecules24132405>

Tienaho J, Karonen M, Muilu-Mäkelä R, Wähälä K, Denegri EL, Franzén R, Karp M, Santala V, Sarjala T. 2019. Metabolic profiling of water-soluble compounds from the extracts of dark septate endophytic fungi (DSE) isolated from scots pine (*Pinus sylvestris* L.) seedlings using UPLC–orbitrap–MS. *Molecules*. 24(12). <https://doi.org/10.3390/molecules24122330>

Umeyama T, Hanaoka T, Yamada H, Namura Y, Mizuno S, Ohara T, Baek J, Park J, Takano Y, Stranius K, Tkachenko NV, Imahori H. 2019. Exclusive occurrence of photoinduced energy transfer and switching of its direction by rectangular  $\pi$ -extension of nanographenes. *Chemical Science*. 10(27):6642-6650. <https://doi.org/10.1039/c9sc01538h>

Liu W, Ban J, Feng L, Cheng T, Emmert-Streib F, Dehmer M. 2019. The maximum Hosoya index of unicyclic graphs with diameter at most four. *Symmetry*. 11(8). <https://doi.org/10.3390/sym11081034>

Ghorbani M, Dehmer M, Mowshowitz A, Tao J, Emmert-Streib F. 2019. The Hosoya entropy of graphs revisited. *Symmetry*. 11(8). <https://doi.org/10.3390/sym11081013>

Banerjee SS, Natarajan TS, Subramani B. E, Wießner S, Janke A, Heinrich G, Das A. 2019. Temperature scanning stress relaxation behavior of water responsive and mechanically adaptive elastomer nanocomposites. *Journal of Applied Polymer Science*. <https://doi.org/10.1002/app.48344>

Sharma V, Yiannacou K, Karjalainen M, Lahtonen K, Valden M, Sariola V. 2019. Large-scale efficient water harvesting using bioinspired micro-patterned copper oxide nanoneedle surfaces and guided droplet transport. *Nanoscale Advances*. 1(10):4025-4040. <https://doi.org/10.1039/c9na00405j>

Ayodele OB, Cai R, Wang J, Ziouani Y, Liang Z, Spadaro MC, Kovnir K, Arbiol J, Akola J, Palmer RE, Kolen'Ko YV. 2019. Synergistic Computational-Experimental Discovery of Highly Selective PtCu Nanocluster Catalysts for Acetylene Semihydrogenation. *ACS CATALYSIS*. 451-457. <https://doi.org/10.1021/acscatal.9b03539>

Passananti M, Zapadinsky E, Zanca T, Kangasluoma J, Mylly N, Rissanen MP, Kurtén T, Ehn M, Attoui M, Vehkamäki H. 2019. How well can we predict cluster fragmentation inside a mass spectrometer?. *Chemical Communications*. 55(42):5946-5949. <https://doi.org/10.1039/c9cc02896j>



Joost U, Sutka A, Oja M, Smits K, Doebelin N, Loot A, Järvekülg M, Hirsimäki M, Valden M, Nommiste E. 2018. Reversible photodoping of TiO<sub>2</sub> nanoparticles. *Chemistry of Materials*. 30(24):8968-8974. <https://doi.org/10.1021/acs.chemmater.8b04813>

Czaplicki R, Kiviniemi A, Huttunen MJ, Zang X, Stolt T, Vartiainen I, Butet J, Kuittinen M, Martin OJF, Kauranen M. 2018. Less Is More: Enhancement of Second-Harmonic Generation from Metasurfaces by Reduced Nanoparticle Density. *Nano Letters*. 18(12):7709-7714. <https://doi.org/10.1021/acs.nanolett.8b03378>

Garifullin M. 2018. Experimental moment resistance of rectangular hollow section T joints. *MATEC Web of Conferences*. 245. <https://doi.org/10.1051/mateconf/201824508003>

Kotila T, Kogan K, Enkavi G, Guo S, Vattulainen I, Goode BL, Lappalainen P. 2018. Structural basis of actin monomer re-charging by cyclase-Associated protein. *Nature Communications*. 9(1). <https://doi.org/10.1038/s41467-018-04231-7>

Perumbilavil S, Piccardi A, Barboza R, Buchnev O, Kauranen M, Strangi G, Assanto G. 2018. Beaming random lasers with soliton control. *Nature Communications*. 9(1). <https://doi.org/10.1038/s41467-018-06170-9>

Salmenjoki H, Alava MJ, Laurson L. 2018. Machine learning plastic deformation of crystals. *Nature Communications*. 9(1). <https://doi.org/10.1038/s41467-018-07737-2>

Ferreira SA, Motwani MS, Faull PA, Seymour AJ, Yu TTL, Enayati M, Taheem DK, Salzlechner C, Haghghi T, Kania EM, Oommen OP, Ahmed T, Loaiza S, Parzych K, Dazzi F, Varghese OP, Festy F, Grigoriadis AE, Auner HW, Snijders AP, Bozec L, Gentleman E. 2018. Bi-directional cell-pericellular matrix interactions direct stem cell fate. *Nature Communications*. 9(1). <https://doi.org/10.1038/s41467-018-06183-4>

Rimpiläinen T, Andrade J, Nunes A, Ntungwe E, Fernandes AS, Vale JR, Rodrigues J, Gomes JP, Rijo P, Candeias NR. 2018. Aminobenzylated 4-Nitrophenols as Antibacterial Agents Obtained from 5-Nitrosalicylaldehyde through a Petasis Borono-Mannich Reaction. *ACS Omega*. 3(11):16191-16202. <https://doi.org/10.1021/acsomega.8b02381>

Närhi M, Salmela L, Toivonen J, Billet C, Dudley JM, Genty G. 2018. Machine learning analysis of extreme events in optical fibre modulation instability. *Nature Communications*. 9(1). <https://doi.org/10.1038/s41467-018-07355-y>

Uusheimo S, Huotari J, Tulonen T, Aalto SL, Rissanen AJ, Arvola L. 2018. High Nitrogen Removal in a Constructed Wetland Receiving Treated Wastewater in a Cold Climate. *Environmental science & technology*. 52(22):13343-13350. <https://doi.org/10.1021/acs.est.8b03032>

Sakai H, Inaya R, Tkachenko NV, Hasobe T. 2018. High-Yield Generation of Triplet Excited States by an Efficient Sequential Photoinduced Process from Energy Transfer to Singlet Fission in Pentacene-Modified CdSe/ZnS Quantum Dots. *Chemistry - A European Journal*. 24(64):17062-17071. <https://doi.org/10.1002/chem.201803257>

Rinne J, Keskinen J, Berger PR, Lupo D, Valkama M. 2018. M2M Communication Assessment in Energy-Harvesting and Wake-Up Radio Assisted Scenarios Using Practical Components. *Sensors (Basel, Switzerland)*. 18(11). <https://doi.org/10.3390/s18113992>

Chevrier DM, Raich L, Rovira C, Das A, Luo Z, Yao Q, Chatt A, Xie J, Jin R, Akola J, Zhang P. 2018. Molecular-Scale Ligand Effects in Small Gold-Thiolate Nanoclusters. *Journal of the American Chemical Society*. 140(45):15430-15436. <https://doi.org/10.1021/jacs.8b09440>

Tan LC, Nancharaiyah YV, Lu S, van Hullebusch ED, Gerlach R, Lens PNL. 2018. Biological treatment of selenium-laden wastewater containing nitrate and sulfate in an upflow anaerobic sludge bed reactor at pH 5.0. *Chemosphere*. 211:684-693. <https://doi.org/10.1016/j.chemosphere.2018.07.079>

Huttunen-Saarivirta E, Isotahdon E, Metsäjoki J, Salminen T, Carpén L, Ronkainen H. 2018. Tribocorrosion behaviour of aluminium bronze in 3.5 wt.% NaCl solution. *Corrosion Science*. 144:207-223. <https://doi.org/10.1016/j.corsci.2018.08.058>

Tiihonen J, Kylänpää I, Rantala TT. 2018. Computation of Dynamic Polarizabilities and van der Waals Coefficients from Path-Integral Monte Carlo. *Journal of Chemical Theory and Computation*. 14:5750-5763. <https://doi.org/10.1021/acs.jctc.8b00859>

Heijne AT, Liu D, Sulonen M, Sleutels T, Fabregat-Santiago F. 2018. Quantification of bio-anode capacitance in bioelectrochemical systems using Electrochemical Impedance Spectroscopy. *Journal of Power Sources*. 400:533-538. <https://doi.org/10.1016/j.jpowsour.2018.08.003>

Rajan R, Rainosalto E, Ramamoorthy SK, Thomas SP, Zavašnik J, Vuorinen J, Skrifvars M. 2018. Mechanical, thermal, and burning properties of viscose fabric composites: Influence of epoxy resin modification. *Journal of Applied Polymer Science*. 135(36). <https://doi.org/10.1002/app.46673>

Jermakka J, Thompson Brewster E, Ledezma P, Freguia S. 2018. Electro-concentration for chemical-free nitrogen capture as solid ammonium bicarbonate. *Separation and Purification Technology*. 203:48-55. <https://doi.org/10.1016/j.seppur.2018.04.023>

Nieminen V, Karjalainen M, Salminen K, Rantala J, Kontunen A, Isokoski P, Müller P, Kallio P, Surakka V, Lekkala J. 2018. A compact olfactometer for IMS measurements and testing human perception. *International Journal for Ion Mobility Spectrometry*. 21(3):71-80. <https://doi.org/10.1007/s12127-018-0235-1>

Hyvälouma J, Hannula M, Arstila K, Wang H, Kulju S, Rasa K. 2018. Effects of pyrolysis temperature on the hydrologically relevant porosity of willow biochar. *Journal of Analytical and Applied Pyrolysis*. 134. <https://doi.org/10.1016/j.jaap.2018.07.011>

Mandal S, Garcia Iglesias M, Ince M, Torres T, Tkachenko NV. 2018. Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids. *ACS Omega*. 3(8):10048-10057. <https://doi.org/10.1021/acsomega.8b01623>

Tan LC, Espinosa-Ortiz EJ, Nancharaiyah YV, van Hullebusch ED, Gerlach R, Lens PN. 2018. Selenate removal in biofilm systems: Effect of nitrate and sulfate on selenium removal efficiency, biofilm structure and microbial community. *Journal of Chemical Technology and Biotechnology*. 93(8):2380-2389. <https://doi.org/10.1002/jctb.5586>

Hiltunen A, Ruoko T-P, Iivonen T, Lahtonen K, Ali-Löytty H, Sarlin E, Valden M, Leskelä M, Tkachenko N. 2018. Design aspects of all atomic layer deposited TiO<sub>2</sub>-Fe<sub>2</sub>O<sub>3</sub> scaffold-absorber photoanodes for water splitting. *Sustainable Energy & Fuels*. 2(9):2124-2130. <https://doi.org/10.1039/C8SE00252E>

Rajala S, Schouten M, Krijnen G, Tuukkanen S. 2018. High Bending-Mode Sensitivity of Printed Piezoelectric Poly(vinylidene fluoride-co-trifluoroethylene) Sensors. *ACS Omega*. 3(7):8067-8073. <https://doi.org/10.1021/acsomega.8b01185>

Laurén P, Paukkonen H, Lipiäinen T, Dong Y, Oksanen T, Räikkönen H, Ehlers H, Laaksonen P, Yliperttula M, Laaksonen T. 2018. Pectin and Mucin Enhance the Bioadhesion of Drug Loaded Nanofibrillated Cellulose Films. *Pharmaceutical Research*. 35(7). <https://doi.org/10.1007/s11095-018-2428-z>

Siljander S, Keinänen P, Rätty A, Ramakrishnan KR, Tuukkanen S, Kunnari V, Harlin A, Vuorinen J, Kanerva M. 2018. Effect of surfactant type and sonication energy on the electrical conductivity properties of nanocellulose-CNT nanocomposite films. *International Journal of Molecular Sciences*. 19(6). <https://doi.org/10.3390/ijms19061819>

Nair AK, Bhavitha KB, Perumbilavil S, Sankar P, Rouxel D, Kala MS, Thomas S, Kalarikkal N. 2018. Multifunctional nitrogen sulfur co-doped reduced graphene oxide – Ag nano hybrids (sphere, cube and wire) for nonlinear optical and SERS applications. *Carbon*. 132:380-393. <https://doi.org/10.1016/j.carbon.2018.02.068>

George L, Hiltunen A, Santala V, Efimov A. 2018. Photo-antimicrobial efficacy of zinc complexes of porphyrin and phthalocyanine activated by inexpensive consumer LED lamp. *Journal of Inorganic Biochemistry*. 183:94-100. <https://doi.org/10.1016/j.jinorgbio.2018.03.015>

Pirhonen M, Peltokangas M, Vehkaoja A. 2018. Acquiring respiration rate from photoplethysmographic signal by recursive bayesian tracking of intrinsic modes in time-frequency spectra. *Sensors*. 18(6). <https://doi.org/10.3390/s18061693>

Virtanen J, Somppi S, Törnqvist H, Jeyhani V, Fiedler P, Gizatdinova Y, Majaranta P, Väättäjä H, Cardó AV, Lekkala J, Tuukkanen S, Surakka V, Vainio O, Vehkaoja A. 2018. Evaluation of dry electrodes in canine heart rate monitoring. *Sensors*. 18(6). <https://doi.org/10.3390/s18061757>

Virkki K, Tervola E, Medel M, Torres T, Tkachenko NV. 2018. Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the TiO<sub>2</sub>-Phthalocyanine Interface. *ACS Omega*. 3(5):4947-4958. <https://doi.org/10.1021/acsomega.8b00600>

Zhou K, Dichlberger A, Martinez-Seara H, Nyholm TKM, Li S, Kim YA, Vattulainen I, Ikonen E, Blom T. 2018. A Ceramide-Regulated Element in the Late Endosomal Protein LAPTM4B Controls Amino Acid Transporter Interaction. *ACS Central Science*. 4(5):548-558. <https://doi.org/10.1021/acscentsci.7b00582>

Raappana M, Polojärvi V, Aho A, Mäkelä J, Aho T, Tukiainen A, Laukkanen P, Guina M. 2018. Wet etching of dilute nitride GaInNAs, GaInNAsSb, and GaNAsSb alloys lattice-matched to GaAs. *Corrosion Science*. 136:268-274. <https://doi.org/10.1016/j.corsci.2018.03.018>

Manninen H, Rotola-Pukkila M, Aisala H, Hopia A, Laaksonen T. 2018. Free amino acids and 5'-nucleotides in Finnish forest mushrooms. *Food Chemistry*. 247:23-28. <https://doi.org/10.1016/j.foodchem.2017.12.014>

Harra J, Tuominen M, Juuti P, Rissler J, Koivuluoto H, Haapanen J, Niemelä-Anttonen H, Stenroos C, Teisala H, Lahti J, Kuusipalo J, Vuoristo P, Mäkelä JM. 2018. Characteristics of nFOG, an aerosol-based wet thin film coating technique. *Journal of Coatings Technology Research*. 15(3):623-632. <https://doi.org/10.1007/s11998-017-0022-7>

Melcr J, Martinez-Seara H, Nencini R, Kolafa J, Jungwirth P, Ollila OHS. 2018. Accurate Binding of Sodium and Calcium to a POPC Bilayer by Effective Inclusion of Electronic Polarization. *Journal of Physical Chemistry B*. 122(16):4546-4557. <https://doi.org/10.1021/acs.jpcc.7b12510>

Khan M, Koivisto J, Hukka T, Hokka M, Kellomäki M. 2018. Composite Hydrogels Using Bioinspired Approach with in Situ Fast Gelation and Self-Healing Ability as Future Injectable Biomaterial. *ACS Applied Materials & Interfaces*. 10(14):11950-11960. <https://doi.org/10.1021/acsami.8b01351>

Magarkar A, Parkkila P, Viitala T, Lajunen T, Mobarak E, Licari G, Cramariuc O, Vauthey E, Róg T, Bunker A. 2018. Membrane bound COMT isoform is an interfacial enzyme: General mechanism and new drug design paradigm. *Chemical Communications*. 54(28):3440-3443. <https://doi.org/10.1039/c8cc00221e>

Sassatelli P, Bolelli G, Lassinantti Gualtieri M, Heinonen E, Honkanen M, Lusvarghi L, Manfredini T, Rigon R, Vippola M. 2018. Properties of HVOF-sprayed Stellite-6 coatings. *Surface and Coatings Technology*. 338:45-62. <https://doi.org/10.1016/j.surfcoat.2018.01.078>

Poutanen M, Ahmed Z, Rautkari L, Ikkala O, Priimägi A. 2018. Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing. *ACS Macro Letters*. 7(3):381-386. <https://doi.org/10.1021/acsmacrolett.8b00093>

Janka L, Berger LM, Norpoth J, Trache R, Thiele S, Tomastik C, Matikainen V, Vuoristo P. 2018. Improving the high temperature abrasion resistance of thermally sprayed Cr<sub>3</sub>C<sub>2</sub>-NiCr coatings by WC addition. *Surface and Coatings Technology*. 337:296-305. <https://doi.org/10.1016/j.surfcoat.2018.01.035>

Karvinen J, Joki T, Ylä-Outinen L, Koivisto JT, Narkilahti S, Kellomäki M. 2018. Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells. *Reactive and Functional Polymers*. 124:29-39. <https://doi.org/10.1016/j.reactfunctpolym.2017.12.019>

Hannula M, Ali-Löytty H, Lahtonen K, Sarlin E, Saari J, Valden M. 2018. Improved Stability of Atomic Layer Deposited Amorphous TiO<sub>2</sub> Photoelectrode Coatings by Thermally Induced Oxygen Defects. *Chemistry of Materials*. 30(4):1199-1208. <https://doi.org/10.1021/acs.chemmater.7b02938>

Mehrang S, Pietilä J, Korhonen I. 2018. An activity recognition framework deploying the random forest classifier and a single optical heart rate monitoring and triaxial accelerometer wrist-band. *Sensors*. 18(2). <https://doi.org/10.3390/s18020613>

Kainulainen TP, Sirviö JA, Sethi J, Hukka TI, Heiskanen JP. 2018. UV-Blocking Synthetic Biopolymer from Biomass-Based Bifuran Diester and Ethylene Glycol. *Macromolecules*. 51(5):1822-1829. <https://doi.org/10.1021/acs.macromol.7b02457>

Vale JR, Rimpiläinen T, Sievänen E, Rissanen K, Afonso CAM, Candeias NR. 2018. Pot-economy autooxidative condensation of 2-Aryl-2-lithio-1,3-dithianes. *Journal of Organic Chemistry*. 83(4):1948-1958. <https://doi.org/10.1021/acs.joc.7b02896>

Vaikuntam SR, Stöckelhuber KW, Subramani Bhagavatheswaran E, Wießner S, Scheler U, Saalwächter K, Formanek P, Heinrich G, Das A. 2018. Entrapped Styrene Butadiene Polymer Chains by Sol-Gel-Derived Silica Nanoparticles with Hierarchical Raspberry Structures. *Journal of Physical Chemistry B*. 122(6):2010-2022. <https://doi.org/10.1021/acs.jpcc.7b11792>

Iantovics LB, Dehmer M, Emmert-Streib F. 2018. MetriIntSimil-an accurate and robust metric for comparison of similarity in intelligence of any number of cooperative multiagent systems. *Symmetry*. 10(2). <https://doi.org/10.3390/sym10020048>

Barreca D, Carraro G, Maccato C, Altantzis T, Kaunisto K, Gasparotto A. 2018. Controlled Growth of Supported ZnO Inverted Nanopyramids with Downward Pointing Tips. *Crystal Growth and Design*. 18(4):2579-2587. <https://doi.org/10.1021/acs.cgd.8b00198>

Das A, Sallat A, Böhme F, Sarlin E, Vuorinen J, Vennemann N, Heinrich G, Stöckelhuber KW. 2018. Temperature scanning stress relaxation of an autonomous self-healing elastomer containing non-covalent reversible network junctions. *Polymers*. 10(1). <https://doi.org/10.3390/polym10010094>

Kato D, Sakai H, Araki Y, Wada T, Tkachenko NV, Hasobe T. 2018. Concentration-dependent photophysical switching in mixed self-assembled monolayers of pentacene and perylene diimide on gold nanoclusters. *Physical Chemistry Chemical Physics*. 20(13):8695-8706. <https://doi.org/10.1039/c8cp00174j>

Ojha N, Tuomisto M, Lastusaari M, Petit L. 2018. Upconversion from fluorophosphate glasses prepared with NaYF<sub>4</sub>:Er<sup>3+</sup>, Yb<sup>3+</sup> nanocrystals. *RSC Advances*. 8(34):19226-19236. <https://doi.org/10.1039/c8ra03298j>

Saccone M, Kuntze K, Ahmed Z, Siiskonen A, Giese M, Priimagi A. 2018. Ortho-Fluorination of azophenols increases the mesophase stability of photoresponsive hydrogen-bonded liquid crystals. *Journal of Materials Chemistry C*. 6(37):9958-9963. <https://doi.org/10.1039/c8tc02611d>

Shakun A, Poikelispää M, Das A, Vuorinen J. 2018. Improved electromechanical response in acrylic rubber by different carbon-based fillers. *Polymer Engineering and Science*. 58(3):395-404. <https://doi.org/10.1002/pen.24586>

Rajan R, Rainosalu E, Thomas SP, Ramamoorthy SK, Zavašnik J, Vuorinen J, Skrifvars M. 2018. Modification of epoxy resin by silane-coupling agent to improve tensile properties of viscose fabric composites. *Polymer Bulletin*. 75(1):167-195. <https://doi.org/10.1007/s00289-017-2022-2>

Doddapaneni TRKC, Jain R, Praveenkumar R, Rintala J, Romar H, Konttinen J. 2018. Adsorption of furfural from torrefaction condensate using torrefied biomass. *Chemical Engineering Journal*. 334:558-568. <https://doi.org/10.1016/j.cej.2017.10.053>

Honkanen M, Wang J, Kärkkäinen M, Huuhtanen M, Jiang H, Kallinen K, Keiski RL, Akola J, Vippola M. 2018. Regeneration of sulfur-poisoned Pd-based catalyst for natural gas oxidation. *Journal of Catalysis*. 358:253-265. <https://doi.org/10.1016/j.jcat.2017.12.021>

Dessi P, Porca E, Haavisto J, Lakaniemi A-M, Collins G, Lens PNL. 2018. Composition and role of the attached and planktonic microbial communities in mesophilic and thermophilic xylose-fed microbial fuel cells. *RSC Advances*. 8(6):3069-3080. <https://doi.org/10.1039/c7ra12316g>

Ojha N, Nguyen H, Laihin T, Salminen T, Lastusaari M, Petit L. 2018. Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt. *Corrosion Science*. 135:207-214. <https://doi.org/10.1016/j.corsci.2018.02.050>

Saarimaa V, Kaleva A, Paunikallio T, Nikkanen J-P, Heinonen S, Levänen E, Väisänen P, Markkula A. 2018. Convenient extraction method for quantification of thin zinc patina layers. *Surface and Interface Analysis*. 50(5):564-570. <https://doi.org/10.1002/sia.6429>

Rokade SS, Joshi KA, Mahajan K, Patil S, Tomar G, Dubal DS, Parihar VS, Kitture R, Bellare JR, Ghosh S. 2018. Gloriosa superba Mediated Synthesis of Platinum and Palladium Nanoparticles for Induction of Apoptosis in Breast Cancer. *Bioinorganic Chemistry and Applications*. 2018. <https://doi.org/10.1155/2018/4924186>

Tienaho J, Poikulainen E, Sarjala T, Muilu-Mäkelä R, Santala V, Karp M. 2018. A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances. *Photochemistry and Photobiology*. 94(6):1273-1280. <https://doi.org/10.1111/php.12954>

D'Urso L, Condorelli M, Puglisi O, Tempa C, Lolicato F, Compagnini G, La Rosa C. 2018. Detection and characterization at nM concentration of oligomers formed by hIAPP, A $\beta$ (1-40) and their equimolar mixture using SERS and MD simulations. *Physical Chemistry Chemical Physics*. 20(31):20588-20596. <https://doi.org/10.1039/c7cp08552d>

Nykänen H, Mpamah PA, Rissanen AJ. 2018. Stable carbon isotopic composition of peat columns, subsoil and vegetation on natural and forestry-drained boreal peatlands. *Isotopes in Environmental and Health Studies*. 54(6). <https://doi.org/10.1080/10256016.2018.1523158>

Sadiek I, Mikkonen T, Vainio M, Toivonen J, Foltynowicz A. 2018. Optical frequency comb photoacoustic spectroscopy. *Physical Chemistry Chemical Physics*. 20(44):27849-27855. <https://doi.org/10.1039/c8cp05666h>

Durandin NA, Isokuortti J, Efimov A, Vuorimaa-Laukkanen E, Tkachenko NV, Laaksonen T. 2018. Efficient photon upconversion at remarkably low annihilator concentrations in a liquid polymer matrix: when less is more. *Chemical Communications*. 54(99):14029-14032. <https://doi.org/10.1039/c8cc07592a>

Virkki M, Maurice A, Forni A, Sironi M, Dichiarante V, Brevet PF, Metrangolo P, Kauranen M, Priimagi A. 2018. On the molecular optical nonlinearity of halogen-bond-forming azobenzenes. *Physical Chemistry Chemical Physics*. 20(45):28810-28817. <https://doi.org/10.1039/c8cp05392h>

Saarimaa V, Kaleva A, Nikkanen J-P, Heinonen S, Levänen E, Väisänen P, Markkula A, Juhanoja J. 2017. Supercritical carbon dioxide treatment of hot dip galvanized steel as a surface treatment before coating. *Surface and Coatings Technology*. 331:137-142. <https://doi.org/10.1016/j.surfcoat.2017.10.047>

Lisitsyna ES, Ketola T-M, Morin-Picardat E, Liang H, Hanzlíková M, Urtti A, Yliperttula M, Vuorimaa-Laukkanen E. 2017. Time-Resolved Fluorescence Spectroscopy Reveals Fine Structure and Dynamics of Poly(L-lysine) and Polyethylenimine Based DNA Polyplexes. *Journal of Physical Chemistry B*. 121(48):10782-10792. <https://doi.org/10.1021/acs.jpcc.7b08394>

Liimatainen V, Vuckovac M, Jokinen V, Sariola V, Hokkanen MJ, Zhou Q, Ras RHA. 2017. Mapping microscale wetting variations on biological and synthetic water-repellent surfaces. *Nature Communications*. 8(1). <https://doi.org/10.1038/s41467-017-01510-7>

Christophliemk H, Johansson C, Ullsten H, Järnström L. 2017. Oxygen and water vapor transmission rates of starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper. *Progress in Organic Coatings*. 113:218-224. <https://doi.org/10.1016/j.porgcoat.2017.04.019>

Sippola RJ, Hadipour A, Kastinen T, Vivo P, Hukka TI, Aernouts T, Heiskanen JP. 2017. Carbazole-based small molecule electron donors: Syntheses, characterization, and material properties. *Dyes and Pigments*. 150:79-88. <https://doi.org/10.1016/j.dyepig.2017.11.014>

Danne R, Poojari C, Martinez-Seara H, Rissanen S, Lolicato F, Róg T, Vattulainen I. 2017. DoGlycans-Tools for Preparing Carbohydrate Structures for Atomistic Simulations of Glycoproteins, Glycolipids, and Carbohydrate Polymers for GROMACS. *Journal of Chemical Information and Modeling*. 57(10):2401-2406. <https://doi.org/10.1021/acs.jcim.7b00237>

Christophliemk H, Ullsten H, Johansson C, Järnström L. 2017. Starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper and their effects of phase interactions. *Progress in Organic Coatings*. 111:13-22. <https://doi.org/10.1016/j.porgcoat.2017.04.018>

Isakov M, Matikainen V, Koivuluoto H, May M. 2017. Systematic analysis of coating-substrate interactions in the presence of flow localization. *Surface and Coatings Technology*. 324:264-280. <https://doi.org/10.1016/j.surfcoat.2017.05.040>

Timr Š, Pleskot R, Kadlec J, Kohagen M, Magarkar A, Jungwirth P. 2017. Membrane Binding of Recoverin: From Mechanistic Understanding to Biological Functionality. *ACS Central Science*. 3(8):868-874. <https://doi.org/10.1021/acscentsci.7b00210>

Pirjola L, Rönkkö T, Saukko E, Parviainen H, Malinen A, Alanen J, Saveljeff H. 2017. Exhaust emissions of non-road mobile machine: Real-world and laboratory studies with diesel and HVO fuels. *Fuel*. 202:154-164. <https://doi.org/10.1016/j.fuel.2017.04.029>

Itävuori P, Hulthén E, Vilkkonen M. 2017. Feed-hopper level estimation and control in cone crushers. *Minerals Engineering*. 110:82-95. <https://doi.org/10.1016/j.mineng.2017.04.010>

Rahaman O, Kalimeri M, Katava M, Paciaroni A, Sterpone F. 2017. Configurational Disorder of Water Hydrogen-Bond Network at the Protein Dynamical Transition. *Journal of Physical Chemistry Part B*. 121(28):6792-6798. <https://doi.org/10.1021/acs.jpcc.7b03888>

Poikelispää M, Shakun A, Sarlin E, Das A, Vuorinen J. 2017. Vegetable fillers for electric stimuli responsive elastomers. *Journal of Applied Polymer Science*. 134(28). <https://doi.org/10.1002/app.45081>

Suominen M, Lehtimäki S, Yewale R, Damlin P, Tuukkanen S, Kvarnström C. 2017. Electropolymerized polyazulene as active material in flexible supercapacitors. *Journal of Power Sources*. 356:181-190. <https://doi.org/10.1016/j.jpowsour.2017.04.082>

Nogueira IBR, Ribeiro AM, Martins MAF, Rodrigues AE, Koivisto H, Loureiro JM. 2017. Dynamics of a True Moving Bed separation process: Linear model identification and advanced process control. *Journal of Chromatography A*. 1504. <https://doi.org/10.1016/j.chroma.2017.04.060>

Baek J, Umeyama T, Stranius K, Yamada H, Tkachenko NV, Imahori H. 2017. Long-Range Observation of Exciplex Formation and Decay Mediated by One-Dimensional Bridges. *Journal of Physical Chemistry C*. 121(25):13952-13961. <https://doi.org/10.1021/acs.jpcc.7b04483>

- Railanmaa A, Lehtimäki S, Lupo D. 2017. Comparison of starch and gelatin hydrogels for non-toxic supercapacitor electrolytes. *Applied Physics A-Materials Science and Processing*. 123(6). <https://doi.org/10.1007/s00339-017-1068-1>
- Ma L, Laasonen K, Akola J. 2017. Catalytic Activity of AuCu Clusters on MgO(100): Effect of Alloy Composition for CO Oxidation. *Journal of Physical Chemistry C*. 121(20):10876-10886. <https://doi.org/10.1021/acs.jpcc.6b12054>
- Goh J-Q, Akola J, Ferrando R. 2017. Geometric Structure and Chemical Ordering of Large AuCu Clusters: A Computational Study. *Journal of Physical Chemistry C*. 121(20):10809-10816. <https://doi.org/10.1021/acs.jpcc.6b11958>
- Piccardi A, Alberucci A, Kravets N, Buchnev O, Assanto G. 2017. Nematicon-enhanced spontaneous symmetry breaking. *Molecular Crystals and Liquid Crystals*. 649(1):59-65. <https://doi.org/10.1080/15421406.2017.1303916>
- Jones RO, Ahlstedt O, Akola J, Ropo M. 2017. Density functional study of structure and dynamics in liquid antimony and  $Sb_n$  clusters. *Journal of Chemical Physics*. 146(19). <https://doi.org/10.1063/1.4983219>
- Kramb J, Gómez-Barea A, DeMartini N, Romar H, Doddapaneni TRKC, Kontinen J. 2017. The effects of calcium and potassium on  $CO_2$  gasification of birch wood in a fluidized bed. *Fuel*. 196:398-407. <https://doi.org/10.1016/j.fuel.2017.01.101>
- Virkki K, Hakola H, Urbani M, Tejerina L, Ince M, Martínez-Díaz MV, Torres T, Golovanova V, Golovanov V, Tkachenko NV. 2017. Photoinduced Electron Injection from Zinc Phthalocyanines into Zinc Oxide Nanorods: Aggregation Effects. *Journal of Physical Chemistry C*. 121(17):9594-9605. <https://doi.org/10.1021/acs.jpcc.7b01562>
- Honkanen M, Hansen TW, Jiang H, Kärkkäinen M, Huuhtanen M, Heikkinen O, Kallinen K, Lahtinen J, Keiski RL, Wagner JB, Vippola M. 2017. Electron microscopic studies of natural gas oxidation catalyst – Effects of thermally accelerated aging on catalyst microstructure. *Journal of Catalysis*. 349:19-29. <https://doi.org/10.1016/j.jcat.2017.03.003>
- Mah PT, Novakovic D, Saarinen J, van Landeghem S, Peltonen L, Laaksonen T, Isomäki A, Strachan CJ. 2017. Elucidation of Compression-Induced Surface Crystallization in Amorphous Tablets Using Sum Frequency Generation (SFG) Microscopy. *Pharmaceutical Research*. 34(5):957-970. <https://doi.org/10.1007/s11095-016-2046-6>
- Higashino T, Nakatsuji H, Fukuda R, Okamoto H, Imai H, Matsuda T, Tochio H, Shirakawa M, Tkachenko NV, Hashida M, Murakami T, Imahori H. 2017. Hexaphyrin as a Potential Theranostic Dye for Photothermal Therapy and  $^{19}F$  Magnetic Resonance Imaging. *ChemBioChem*. 18(10):951-959. <https://doi.org/10.1002/cbic.201700071>
- Bilkova E, Pleskot R, Rissanen S, Sun S, Czogalla A, Cwiklik L, Róg T, Vattulainen I, Cremer PS, Jungwirth P, Coskun Ü. 2017. Calcium Directly Regulates Phosphatidylinositol 4,5-Bisphosphate Headgroup Conformation and Recognition. *Journal of the American Chemical Society*. 139(11):4019-4024. <https://doi.org/10.1021/jacs.6b11760>
- Milani R, Houbenov N, Fernandez-Palacio F, Cavallo G, Luzio A, Haataja J, Giancane G, Saccone M, Priimägi A, Metrangolo P, Ikkala O. 2017. Hierarchical Self-Assembly of Halogen-Bonded Block Copolymer Complexes into Upright Cylindrical Domains. *CheM*. 2(3):417-426. <https://doi.org/10.1016/j.chempr.2017.02.003>
- Guixà-González R, Albasanz JL, Rodríguez-Espigares I, Pastor M, Sanz F, Martí-Solano M, Manna M, Martínez-Seara H, Hildebrand PW, Martín M, Selent J. 2017. Membrane cholesterol access into a G-protein-coupled receptor. *Nature Communications*. 8. <https://doi.org/10.1038/ncomms14505>
- Izdebskaya Y, Shvedov V, Assanto G, Krolikowski W. 2017. Magnetic routing of light-induced waveguides. *Nature Communications*. 8. <https://doi.org/10.1038/ncomms14452>
- Siiskonen A, Priimägi A. 2017. Benchmarking DFT methods with small basis sets for the calculation of halogen-bond strengths. *Journal of Molecular Modeling*. 23(2). <https://doi.org/10.1007/s00894-017-3212-4>

Balanta MAG, Orsi Gordo V, Carvalho ARH, Puustinen J, Alghamdi HM, Henini M, Galeti HVA, Guina M, Galvão Gobato Y. 2017. Polarization resolved photoluminescence in GaAs<sub>1-x</sub>Bi<sub>x</sub>/GaAs quantum wells. *Journal of Luminescence*. 182:49-52. <https://doi.org/10.1016/j.jlumin.2016.10.008>

Kovács PT, Zare A, Balogh T, Bregovic R, Gotchev A. 2017. Architectures and codecs for real-time light field streaming. *Journal of Imaging Science and Technology*. 61(1). <https://doi.org/10.2352/J.ImagingSci.Technol.2017.61.1.010403>

Vuori L, Ali-Löytty H, Lahtonen K, Hannula M, Lehtonen E, Niu Y, Valden M. 2017. Improved corrosion properties of Hot Dip Galvanized Steel by nanomolecular silane layers as hybrid interface between zinc and top coatings. *Corrosion*. 73(2). <https://doi.org/10.5006/2206>

Lahbib I, Valkonen A, Rzaigui M, Smirani W. 2017. Synthesis, Structural Characterization, Hirshfeld Surface and Antioxidant Activity Analysis of a Novel Organic Cation Antimonate Complex. *Journal of Cluster Science*. 28(4):2239-2252. <https://doi.org/10.1007/s10876-017-1217-x>

Golovanov VV, Nazarchuk BV, Golovanova VV, Tkachenko NV, Rantala TT. 2017. Effects of orientation at the phthalocyanine-CdSe interface on the electron transfer characteristics. *Physical Chemistry Chemical Physics*. 19(16):10511-10517. <https://doi.org/10.1039/c7cp00833c>

Mojica E, Pertuz S, Arguello H. 2017. High-resolution coded-aperture design for compressive X-ray tomography using low resolution detectors. *Optics Communications*. 404:103-109. <https://doi.org/10.1016/j.optcom.2017.06.053>

Fabert M, Ojha N, Erasmus E, Hannula M, Hokka M, Hyttinen J, Rocherullé J, Sigalas I, Massera J. 2017. Crystallization and sintering of borosilicate bioactive glasses for application in tissue engineering. *Journal of Materials Chemistry B*. 5(23):4514-4525. <https://doi.org/10.1039/c7tb00106a>

Javanainen M, Melcrová A, Magarkar A, Jurkiewicz P, Hof M, Jungwirth P, Martinez-Seara H. 2017. Two cations, two mechanisms: Interactions of sodium and calcium with zwitterionic lipid membranes. *Chemical Communications*. 53(39):5380-5383. <https://doi.org/10.1039/c7cc02208e>

Vapaavuori J, Siiskonen A, Dichiarante V, Forni A, Saccone M, Pilati T, Pellerin C, Shishido A, Metrangolo P, Priimagi A. 2017. Supramolecular control of liquid crystals by doping with halogen-bonding dyes. *RSC Advances*. 7(64):40237-40242. <https://doi.org/10.1039/c7ra06397k>

Saccone M, Palacio FF, Cavallo G, Dichiarante V, Virkki M, Terraneo G, Priimagi A, Metrangolo P. 2017. Photoresponsive ionic liquid crystals assembled: Via halogen bond: En route towards light-controllable ion transporters. *Faraday Discussions*. 203:407-422. <https://doi.org/10.1039/c7fd00120g>

Baek J, Umeyama T, Mizuno S, Tkachenko NV, Imahori H. 2017. Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems. *Journal of Physical Chemistry C*. 121(39). <https://doi.org/10.1021/acs.jpcc.7b08594>

Kordmahaleh AA, Naghashzadegan M, Javaherdeh K, Khoshgoftar M. 2017. Design of a 25 MWe Solar Thermal Power Plant in Iran with Using Parabolic Trough Collectors and a Two-Tank Molten Salt Storage System. *International Journal of Photoenergy*. 2017. <https://doi.org/10.1155/2017/4210184>

Ntziachristos L, Saukko E, Lehtoranta K, Rönkkö T, Timonen H, Simonen P, Karjalainen P, Keskinen J. 2016. Particle emissions characterization from a medium-speed marine diesel engine with two fuels at different sampling conditions. *Fuel*. 186:456-465. <https://doi.org/10.1016/j.fuel.2016.08.091>

Varis T, Suhonen T, Caloni O, Čuban J, Pietola M. 2016. Optimization of HVOF Cr<sub>3</sub>C<sub>2</sub>-NiCr coating for increased fatigue performance. *Surface and Coatings Technology*. 305:123-131. <https://doi.org/10.1016/j.surfcoat.2016.08.012>



Ropo M, Akola J, Jones RO. 2016. Collective excitations and viscosity in liquid Bi. *Journal of Chemical Physics*. 145(18). <https://doi.org/10.1063/1.4965429>

Poikelispää M, Shakun A, Das A, Vuorinen J. 2016. Improvement of actuation performance of dielectric elastomers by barium titanate and carbon black fillers. *Journal of Applied Polymer Science*. 133(42). <https://doi.org/10.1002/app.44116>

Smith JD, Mitsakou C, Kitwiroon N, Barratt BM, Walton HA, Taylor JG, Anderson HR, Kelly FJ, Beevers SD. 2016. London Hybrid Exposure Model: Improving Human Exposure Estimates to NO<sub>2</sub> and PM<sub>2.5</sub> in an Urban Setting. *Environmental Science and Technology*. 50(21):11760-11768. <https://doi.org/10.1021/acs.est.6b01817>

Ali-Löytty H, Hannula M, Honkanen M, Östman K, Lahtonen K, Valden M. 2016. Grain orientation dependent Nb-Ti microalloying mediated surface segregation on ferritic stainless steel. *Corrosion Science*. 112:204-213. <https://doi.org/10.1016/j.corsci.2016.07.024>

Reisberg L, Pärna R, Kikas A, Kuusik I, Kisand V, Hirsimäki M, Valden M, Nõmmiste E. 2016. UPS and DFT investigation of the electronic structure of gas-phase trimesic acid. *Journal of Electron Spectroscopy and Related Phenomena*. 213:11-16. <https://doi.org/10.1016/j.elspec.2016.10.004>

Will OM, Purcz N, Chalaris A, Heneweer C, Boretius S, Purcz L, Nikkola L, Ashammakhi N, Kalthoff H, Glüer CC, Wiltfang J, Açil Y, Tiwari S. 2016. Increased survival rate by local release of diclofenac in a murine model of recurrent oral carcinoma. *International Journal of Nanomedicine*. 11:5311-5321. <https://doi.org/10.2147/IJN.S109199>

Kramb J, Konttinen J, Backman R, Salo K, Roberts M. 2016. Elimination of arsenic-containing emissions from gasification of chromated copper arsenate wood. *Fuel*. 181:319-324. <https://doi.org/10.1016/j.fuel.2016.04.109>

Zhou Q, Sariola V, Latifi K, Liimatainen V. 2016. Controlling the motion of multiple objects on a Chladni plate. *Nature Communications*. 7. <https://doi.org/10.1038/ncomms12764>

Robison AD, Sun S, Poyton MF, Johnson GA, Pellois JP, Jungwirth P, Vazdar M, Cremer PS. 2016. Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers. *Journal of Physical Chemistry Part B*. 120(35):9287-9296. <https://doi.org/10.1021/acs.jpcc.6b05604>

Pilehrood MK, Atashi A, Sadeghi-Aliabadi H, Nousiainen P, Harlin A. 2016. 3D micro-nano structured hybrid scaffolds: An investigation into the role of nanofiber coating on viability, proliferation and differentiation of seeded mesenchymal stem cells. *Journal Nanoscience and Nanotechnology*. 16(9):9000-9007. <https://doi.org/10.1166/jnn.2016.12740>

Mylläri V, Hartikainen S, Poliakova V, Anderson R, Jönkkäri I, Pasanen P, Andersson M, Vuorinen J. 2016. Detergent impurity effect on recycled HDPE: Properties after repetitive processing. *Journal of Applied Polymer Science*. 133(31). <https://doi.org/10.1002/app.43766>

Garifullin M, Sinelnikov A, Bronzova M, Kovacic B, Kamnik R. 2016. Buckling Behavior of Cold-Formed Studs with Thermal Perforations. *MATEC Web of Conferences*. 73. <https://doi.org/10.1051/mateconf/20167304011>

Kapgate BP, Das C, Das A, Basu D, Wiessner S, Reuter U, Heinrich G. 2016. Reinforced chloroprene rubber by in situ generated silica particles: Evidence of bound rubber on the silica surface. *Journal of Applied Polymer Science*. 133(30). <https://doi.org/10.1002/app.43717>

Luna E, Wu M, Hanke M, Puustinen J, Guina M, Trampert A. 2016. Spontaneous formation of three-dimensionally ordered Bi-rich nanostructures within GaAs<sub>1-x</sub>Bi<sub>x</sub>/GaAs quantum wells. *Nanotechnology*. 27(32). <https://doi.org/10.1088/0957-4484/27/32/325603>

- Kärkkäinen M, Kolli T, Honkanen M, Heikkinen O, Väliheikki A, Huuhtanen M, Kallinen K, Lahtinen J, Vippola M, Keiski RL. 2016. The Influence of Phosphorus Exposure on a Natural-Gas-Oxidation Catalyst. *Topics in Catalysis*. 59(10-12):1044-1048. <https://doi.org/10.1007/s11244-016-0587-x>
- Poutanen M, Ikkala O, Priimägi A. 2016. Structurally Controlled Dynamics in Azobenzene-Based Supramolecular Self-Assemblies in Solid State. *Macromolecules*. 49(11):4095-4101. <https://doi.org/10.1021/acs.macromol.6b00562>
- Isotahdon E, Huttunen-Saarivirta E, Kuokkala V-T. 2016. Development of Magnetic Losses During Accelerated Corrosion Tests for Nd-Fe-B Magnets Used in Permanent Magnet Generators. *Corrosion*. 72(6):732-741. <https://doi.org/10.5006/2037>
- Razavi A, Valkama M, Lohan ES. 2016. Robust statistical approaches for RSS-based floor detection in indoor localization. *Sensors*. 16(6). <https://doi.org/10.3390/s16060793>
- Sharma R, Bhalerao S, Gupta D. 2016. Effect of incorporation of CdS NPs on performance of PTB7: PCBM organic solar cells. *Organic Electronics: physics, materials, applications*. 33:274-280. <https://doi.org/10.1016/j.orgel.2016.03.030>
- Soto AM, Koivisto JT, Parraga JE, Silva-Correia J, Oliveira JM, Reis RL, Kellomäki M, Hyttinen J, Figueiras E. 2016. Optical Projection Tomography Technique for Image Texture and Mass Transport Studies in Hydrogels Based on Gellan Gum. *Langmuir*. 32(20):5173-5182. <https://doi.org/10.1021/acs.langmuir.6b00554>
- La Rosa C, Scalisi S, Lolicato F, Pannuzzo M, Raudino A. 2016. Lipid-assisted protein transport: A diffusion-reaction model supported by kinetic experiments and molecular dynamics simulations. *Journal of Chemical Physics*. 144(18). <https://doi.org/10.1063/1.4948323>
- Hakola H, Sariola-Leikas E, Efimov A, Tkachenko NV. 2016. Effect of Hole Transporting Material on Charge Transfer Processes in Zinc Phthalocyanine Sensitized ZnO Nanorods. *Journal of Physical Chemistry C*. 120(13):7044-7051. <https://doi.org/10.1021/acs.jpcc.6b01583>
- Janka L, Norpoth J, Trache R, Berger LM. 2016. Influence of heat treatment on the abrasive wear resistance of a Cr<sub>3</sub>C<sub>2</sub> NiCr coating deposited by an ethene-fuelled HVOF spray process. *Surface and Coatings Technology*. 291:444-451. <https://doi.org/10.1016/j.surfcoat.2016.02.066>
- Fernandez-Palacio F, Saccone M, Priimägi A, Terraneo G, Pilati T, Metrangolo P, Resnati G. 2016. Coordination networks incorporating halogen-bond donor sites and azobenzene groups. *CrystEngComm*. 18(13):2251-2257. <https://doi.org/10.1039/c6ce00059b>
- Isakov M, Kokkonen J, Östman K, Kuokkala V-T. 2016. Strain rate change tests with the Split Hopkinson Bar method. *European Physical Journal. Special Topics*. 225(2):231-242. <https://doi.org/10.1140/epjst/e2015-99999-x>
- Ma L, Melander M, Weckman T, Lipasti S, Laasonen K, Akola J. 2016. DFT simulations and microkinetic modelling of 1-pentyne hydrogenation on Cu<sub>20</sub> model catalysts. *Journal of Molecular Graphics and Modelling*. 65:61-70. <https://doi.org/10.1016/j.jmkgm.2016.02.007>
- Viljanen J, Sun Z, Alwahabi ZT. 2016. Microwave assisted laser-induced breakdown spectroscopy at ambient conditions. *Spectrochimica Acta Part B: Atomic Spectroscopy*. 118:29-36. <https://doi.org/10.1016/j.sab.2016.02.002>
- Mal J, Nancharaiyah YV, Van Hullebusch ED, Lens PNL. 2016. Metal chalcogenide quantum dots: Biotechnological synthesis and applications. *RSC Advances*. 6(47):41477-41495. <https://doi.org/10.1039/c6ra08447h>
- Sakuma T, Sakai H, Araki Y, Mori T, Wada T, Tkachenko NV, Hasobe T. 2016. Long-Lived Triplet Excited States of Bent-Shaped Pentacene Dimers by Intramolecular Singlet Fission. *Journal of Physical Chemistry A*. 120(11):1867-1875. <https://doi.org/10.1021/acs.jpca.6b00988>

Katava M, Kalimeri M, Stirnemann G, Sterpone F. 2016. Stability and Function at High Temperature. What Makes a Thermophilic GTPase Different from Its Mesophilic Homologue. *Journal of Physical Chemistry Part B*. 120(10):2721-2730. <https://doi.org/10.1021/acs.jpcc.6b00306>

Szabo HM, Lepistö R, Tuhkanen T. 2016. HPLC-SEC: a new approach to characterise complex wastewater effluents. *International Journal of Environmental Analytical Chemistry*. 96(3):257-270. <https://doi.org/10.1080/03067319.2016.1150463>

Salunke JK, Wong FL, Feron K, Manzhos S, Lo MF, Shinde D, Patil A, Lee CS, Roy VAL, Sonar P, Wadgaonkar PP. 2016. Phenothiazine and carbazole substituted pyrene based electroluminescent organic semiconductors for OLED devices. *Journal of Materials Chemistry C*. 4(5):1009-1018. <https://doi.org/10.1039/c5tc03690a>

Ali-Löyty H, Louie MW, Singh MR, Li L, Sanchez Casalongue HG, Ogasawara H, Crumlin EJ, Liu Z, Bell AT, Nilsson A, Friebel D. 2016. Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction. *Journal of Physical Chemistry C*. 120(4):2247-2253. <https://doi.org/10.1021/acs.jpcc.5b10931>

Allolio C, Baxova K, Vazdar M, Jungwirth P. 2016. Guanidinium Pairing Facilitates Membrane Translocation. *Journal of Physical Chemistry Part B*. 120(1):143-153. <https://doi.org/10.1021/acs.jpcc.5b10404>

Pirjola L, Dittrich A, Niemi JV, Saarikoski S, Timonen H, Kuuluvainen H, Järvinen A, Kousa A, Rönkkö T, Hillamo R. 2016. Physical and Chemical Characterization of Real-World Particle Number and Mass Emissions from City Buses in Finland. *Environmental Science and Technology*. 50(1):294-304. <https://doi.org/10.1021/acs.est.5b04105>

Rocherullé J, Massera J, Oudadesse H, Calvez L, Trolès J, Zhang XH. 2016. Heat capacities of crystalline and glassy lithium metaphosphate up to the transition region. *Journal of Thermal Analysis and Calorimetry*. 123(1):401-407. <https://doi.org/10.1007/s10973-015-4938-9>

Golovanov V, Golovanova V, Rantala TT. 2016. Thermal desorption of molecular oxygen from SnO<sub>2</sub> (110) surface: Insights from first-principles calculations. *Journal of Physics and Chemistry of Solids*. 89:15-22. <https://doi.org/10.1016/j.jpcs.2015.10.010>

Higashino T, Yamada T, Yamamoto M, Furube A, Tkachenko NV, Miura T, Kobori Y, Jono R, Yamashita K, Imahori H. 2016. Remarkable Dependence of the Final Charge Separation Efficiency on the Donor-Acceptor Interaction in Photoinduced Electron Transfer. *Angewandte Chemie (International Edition)*. 55(2):629-633. <https://doi.org/10.1002/anie.201509067>

Jain R, Dominic D, Jordan N, Rene ER, Weiss S, van Hullebusch ED, Hübner R, Lens PNL. 2016. Preferential adsorption of Cu in a multi-metal mixture onto biogenic elemental selenium nanoparticles. *Chemical Engineering Journal*. 284:917-925. <https://doi.org/10.1016/j.cej.2015.08.144>

Santos FMF, Rosa JN, Candeias NR, Carvalho CP, Matos AI, Ventura AE, Florindo HF, Silva LC, Pischel U, Gois PMP. 2016. A Three-Component Assembly Promoted by Boronic Acids Delivers a Modular Fluorophore Platform (BASHY Dyes). *Chemistry: A European Journal*. 22(5):1631-1637. <https://doi.org/10.1002/chem.201503943>

Matsuo S, Yamazoe S, Goh J-Q, Akola J, Tsukuda T. 2016. The electrooxidation-induced structural changes of gold di-superatomic molecules: Au<sub>23</sub> vs. Au<sub>25</sub>. *Physical Chemistry Chemical Physics*. 18(6):4822-4827. <https://doi.org/10.1039/c5cp06969f>

Kulig W, Cwiklik L, Jurkiewicz P, Rog T, Vattulainen I. 2016. Cholesterol oxidation products and their biological importance. *Chemistry and Physics of Lipids*. 199:144-160. <https://doi.org/10.1016/j.chemphyslip.2016.03.001>

Kato D, Sakai H, Tkachenko NV, Hasobe T. 2016. High-Yield Excited Triplet States in Pentacene Self-Assembled Monolayers on Gold Nanoparticles through Singlet Exciton Fission. *Angewandte Chemie (International Edition)*. 55(17):5230-5234. <https://doi.org/10.1002/anie.201601421>

- Cavallo G, Terraneo G, Monfredini A, Saccone M, Priimägi A, Pilati T, Resnati G, Metrangolo P, Bruce DW. 2016. Superfluorinated Ionic Liquid Crystals Based on Supramolecular, Halogen-Bonded Anions. *Angewandte Chemie (International Edition)*. 55(21):6300-6304. <https://doi.org/10.1002/anie.201601278>
- Bansod ND, Kapgate BP, Das C, Das A, Basu D, Debnath SC. 2016. Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method. *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 80(2):548-559. <https://doi.org/10.1007/s10971-016-4114-0>
- Horinouchi H, Sakai H, Araki Y, Sakanoue T, Takenobu T, Wada T, Tkachenko NV, Hasobe T. 2016. Controllable Electronic Structures and Photoinduced Processes of Bay-Linked Perylene-dimide Dimers and a Ferrocene-Linked Triad. *Chemistry: A European Journal*. 22(28):9631-9641. <https://doi.org/10.1002/chem.201601058>
- Basu D, Das A, Wang DY, George JJ, Stöckelhuber KW, Boldt R, Leuteritz A, Heinrich G. 2016. Fire-safe and environmentally friendly nanocomposites based on layered double hydroxides and ethylene propylene diene elastomer. *RSC Advances*. 6(31):26425-26436. <https://doi.org/10.1039/c5ra27444c>
- Lee TY, Ramasamy P, Oh YK, Lee K, Kim SH. 2016. Alginate microgels created by selective coalescence between core drops paired with an ultrathin shell. *Journal of Materials Chemistry B*. 4(19):3232-3238. <https://doi.org/10.1039/c6tb00580b>
- Halder A, Kandambeth S, Biswal BP, Kaur G, Roy NC, Addicoat M, Salunke JK, Banerjee S, Vanka K, Heine T, Verma S, Banerjee R. 2016. Decoding the Morphological Diversity in Two Dimensional Crystalline Porous Polymers by Core Planarity Modulation. *Angewandte Chemie (International Edition)*. 55(27):7806-7810. <https://doi.org/10.1002/anie.201600087>
- Akamatsu N, Aizawa M, Tatsumi R, Hisano K, Priimägi A, Shishido A. 2016. Photoresponsive liquid-crystalline polymer films bilayered with an inverse opal structure. *JOURNAL OF PHOTOPOLYMER SCIENCE AND TECHNOLOGY*. 29(1):145-148. <https://doi.org/10.2494/photopolymer.29.145>
- Kattiparambil Rajan D, Patrikoski M, Verho J, Sivula J, Ihalainen H, Miettinen S, Lekkala J. 2016. Optical non-contact pH measurement in cell culture with sterilizable, modular parts. *Talanta*. 161:755-761. <https://doi.org/10.1016/j.talanta.2016.09.021>
- Kastinen T, Niskanen M, Risko C, Cramariuc O, Hukka TI. 2016. On describing the optoelectronic characteristics of poly(benzodithiophene-: Co -quinoxaline)-fullerene complexes: The influence of optimally tuned density functionals. *Physical Chemistry Chemical Physics*. 18(39):27654-27670. <https://doi.org/10.1039/c6cp04567g>
- Spataru A, Jain R, Chung JW, Gerner G, Krebs R, Lens PNL. 2016. Enhanced adsorption of orthophosphate and copper onto hydrochar derived from sewage sludge by KOH activation. *RSC Advances*. 6(104):101827-101834. <https://doi.org/10.1039/c6ra22327c>
- Perumbilavil S, Sridharan K, Abraham AR, Janardhanan HP, Kalarikkal N, Philip R. 2016. Nonlinear transmittance and optical power limiting in magnesium ferrite nanoparticles: effects of laser pulsewidth and particle size. *RSC Advances*. 6(108):106754-106761. <https://doi.org/10.1039/c6ra15788b>
- Dhieb AC, Valkonen A, Rzaigui M, Smirani W. 2015. Synthesis, crystal structure, physico-chemical characterization and dielectric properties of a new hybrid material, 1-Ethylpiperazine-1,4-dium tetrachlorocadmate. *Journal of Molecular Structure*. 1102:50-56. <https://doi.org/10.1016/j.molstruc.2015.08.044>
- Alanen J, Saukko E, Lehtoranta K, Murtonen T, Timonen H, Hillamo R, Karjalainen P, Kuuluvainen H, Harra J, Keskinen J, Rönkkö T. 2015. The formation and physical properties of the particle emissions from a natural gas engine. *Fuel*. 162:155-161. <https://doi.org/10.1016/j.fuel.2015.09.003>

- Mäki AJ, Peltokangas M, Kreutzer J, Auvinen S, Kallio P. 2015. Modeling carbon dioxide transport in PDMS-based microfluidic cell culture devices. *Chemical Engineering Science*. 137:515-524. <https://doi.org/10.1016/j.ces.2015.06.065>
- Ihalainen TO, Aires L, Herzog FA, Schwartlander R, Moeller J, Vogel V. 2015. Differential basal-to-apical accessibility of lamin A/C epitopes in the nuclear lamina regulated by changes in cytoskeletal tension. *Nature Materials*. 14(12):1252-1261. <https://doi.org/10.1038/nmat4389>
- Kaouk A, Ruoko TP, Gönüllü Y, Kaunisto K, Mettenböcker A, Gurevich E, Lemmetyinen H, Ostendorf A, Mathur S. 2015. Graphene-intercalated Fe<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> heterojunctions for efficient photoelectrolysis of water. *RSC Advances*. 5(123):101401-101407. <https://doi.org/10.1039/c5ra18330h>
- Seo JY, Lee K, Ramasamy P, Kim B, Lee SY, Oh YK, Park SB. 2015. Tri-functionality of Fe<sub>3</sub>O<sub>4</sub>-embedded carbon microparticles in microalgae harvesting. *Chemical Engineering Journal*. 280:206-214. <https://doi.org/10.1016/j.cej.2015.05.122>
- Le HH, Parsaker M, Sriharish MN, Henning S, Menzel M, Wießner S, Das A, Do QK, Heinrich G, Radusch HJ. 2015. Effect of rubber polarity on selective wetting of carbon nanotubes in ternary blends. *Express Polymer Letters*. 9(11):960-971. <https://doi.org/10.3144/expresspolymlett.2015.87>
- Zorzi GK, Párraga JE, Seijo B, Sanchez A. 2015. Comparison of different cationized proteins as biomaterials for nanoparticle-based ocular gene delivery. *Colloids and Surfaces B: Biointerfaces*. 135:533-541. <https://doi.org/10.1016/j.colsurfb.2015.08.008>
- Vapaavuori J, Laventure A, Bazuin CG, Lebel O, Pellerin C. 2015. Submolecular Plasticization Induced by Photons in Azobenzene Materials. *Journal of the American Chemical Society*. 137(42):13510-13517. <https://doi.org/10.1021/jacs.5b06611>
- Vapaavuori J, Heikkinen ITS, Dichiarante V, Resnati G, Metrangolo P, Sabat RG, Bazuin CG, Priimagi A, Pellerin C. 2015. Photomechanical Energy Transfer to Photopassive Polymers through Hydrogen and Halogen Bonds. *Macromolecules*. 48(20):7535-7542. <https://doi.org/10.1021/acs.macromol.5b01813>
- Vapaavuori J, Grosrenaud J, Pellerin C, Bazuin CG. 2015. In Situ Photocontrol of Block Copolymer Morphology during Dip-Coating of Thin Films. *ACS Macro Letters*. 4(10):1158-1162. <https://doi.org/10.1021/acsmacrolett.5b00483>
- Mylläri V, Fatarella E, Ruzzante M, Pogni R, Baratto MC, Skrifvars M, Syrjälä S, Järvelä P. 2015. Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles. *Journal of Applied Polymer Science*. 132(39). <https://doi.org/10.1002/app.42595>
- Moradi M, Enkavi G, Tajkhorshid E. 2015. Atomic-level characterization of transport cycle thermodynamics in the glycerol-3-phosphate: Phosphate antiporter. *Nature Communications*. 6. <https://doi.org/10.1038/ncomms9393>
- Orlowski A, Kukkurainen S, Pöyry A, Rissanen S, Vattulainen I, Hytönen VP, Róg T. 2015. PIP2 and Talin Join Forces to Activate Integrin. *Journal of Physical Chemistry Part B*. 119(38):12381-12389. <https://doi.org/10.1021/acs.jpcc.5b06457>
- Bhagavatheswaran ES, Parsekar M, Das A, Le HH, Wiessner S, Stöckelhuber KW, Schmaucks G, Heinrich G. 2015. Construction of an Interconnected Nanostructured Carbon Black Network: Development of Highly Stretchable and Robust Elastomeric Conductors. *Journal of Physical Chemistry C*. 119(37):21723-21731. <https://doi.org/10.1021/acs.jpcc.5b06629>
- Milanti A, Matikainen V, Koivuluoto H, Bolelli G, Lusvarghi L, Vuoristo P. 2015. Effect of spraying parameters on the microstructural and corrosion properties of HVAF-sprayed Fe-Cr-Ni-B-C coatings. *Surface and Coatings Technology*. 277:81-90. <https://doi.org/10.1016/j.surfcoat.2015.07.018>
- Goh JQ, Akola J. 2015. Superatom Model for Ag-S Nanocluster with Delocalized Electrons. *Journal of Physical Chemistry C*. 119(36):21165-21172. <https://doi.org/10.1021/acs.jpcc.5b05824>

Ter Schiphorst J, Coleman S, Stumpel JE, Ben Azouz A, Diamond D, Schenning APHJ. 2015. Molecular Design of Light-Responsive Hydrogels, for in Situ Generation of Fast and Reversible Valves for Microfluidic Applications. *Chemistry of Materials*. 27(17):5925-5931. <https://doi.org/10.1021/acs.chemmater.5b01860>

Frankberg EJ, George L, Efimov A, Honkanen M, Pessi J, Levänen E. 2015. Measuring synthesis yield in graphene oxide synthesis by modified hummers method. *Fullerenes Nanotubes and Carbon Nanostructures*. 23(9):755-759. <https://doi.org/10.1080/1536383X.2014.993754>

Tukiainen A, Likonen J, Toikkanen L, Leinonen T. 2015. Unintentional boron contamination of MBE-grown GaInP/AlGaInP quantum wells. *Journal of Crystal Growth*. 425:60-63. <https://doi.org/10.1016/j.jcrysgr.2015.02.048>

Bajamundi CJE, Vainikka P, Hedman M, Silvennoinen J, Heinanen T, Taipale R, Kontinen J. 2015. Searching for a robust strategy for minimizing alkali chlorides in fluidized bed boilers during burning of high SRF-energy-share fuel. *Fuel*. 155:25-36. <https://doi.org/10.1016/j.fuel.2015.03.087>

Yang Y, Kylänpää I, Tubman NM, Krogel JT, Hammes-Schiffer S, Ceperley DM. 2015. How large are nonadiabatic effects in atomic and diatomic systems?. *Journal of Chemical Physics*. 143(12). <https://doi.org/10.1063/1.4931667>

Barreca D, Carraro G, Warwick MEA, Kaunisto K, Gasparotto A, Gombac V, Sada C, Turner S, Van Tendeloo G, Maccato C, Fornasiero P. 2015. Fe<sub>2</sub>O<sub>3</sub>-TiO<sub>2</sub> nanosystems by a hybrid PE-CVD/ALD approach: controllable synthesis, growth mechanism, and photocatalytic properties. *CrystEngComm*. 17(32):6219-6226. <https://doi.org/10.1039/c5ce00883b>

Mäkelä J, Tuominen M, Yasir M, Polojärvi V, Aho A, Tukiainen A, Kuzmin M, Punkkinen MPJ, Laukkanen P, Kokko K, Guina M. 2015. Effects of thinning and heating for TiO<sub>2</sub>/AlInP junctions. *Journal of Electron Spectroscopy and Related Phenomena*. 205:6-9. <https://doi.org/10.1016/j.elspec.2015.08.004>

Lepcha A, Maccato C, Mettenböcker A, Andreu T, Mayrhofer L, Walter M, Olthof S, Ruoko TP, Klein A, Moseler M, Meerholz K, Morante JR, Barreca D, Mathur S. 2015. Electrospun Black Titania Nanofibers: Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance. *Journal of Physical Chemistry C*. 119(33):18835-18842. <https://doi.org/10.1021/acs.jpcc.5b02767>

Levin M, Rojas E, Vanhala E, Vippola M, Liguori B, Kling KI, Koponen IK, Mølhøve K, Tuomi T, Gregurec D, Moya S, Jensen KA. 2015. Influence of relative humidity and physical load during storage on dustiness of inorganic nanomaterials: implications for testing and risk assessment. *Journal of Nanoparticle Research*. 17(8). <https://doi.org/10.1007/s11051-015-3139-6>

Kwolek U, Kulig W, Wydro P, Nowakowska M, Róg T, Kepczynski M. 2015. Effect of Phosphatidic Acid on Biomembrane: Experimental and Molecular Dynamics Simulations Study. *Journal of Physical Chemistry Part B*. 119(31):10042-10051. <https://doi.org/10.1021/acs.jpcc.5b03604>

Le HH, Pham T, Henning S, Klehm J, Wießner S, Stöckelhuber KW, Das A, Hoang XT, Do QK, Wu M, Vennemann N, Heinrich G, Radusch HJ. 2015. Formation and stability of carbon nanotube network in natural rubber: Effect of non-rubber components. *Polymer*. 73:111-121. <https://doi.org/10.1016/j.polymer.2015.07.044>

Stumpel JE. 2015. Responsive Polymer Photonics. *ChemistryOpen*. 4(4):533-535. <https://doi.org/10.1002/open.201500104>

Timr Š, Brabec J, Bondar A, Ryba T, Železný M, Lazar J, Jungwirth P. 2015. Nonlinear Optical Properties of Fluorescent Dyes Allow for Accurate Determination of Their Molecular Orientations in Phospholipid Membranes. *Journal of Physical Chemistry Part B*. 119(30):9706-9716. <https://doi.org/10.1021/acs.jpcc.5b05123>

Rasappa S, Caridad JM, Schulte L, Cagliani A, Borah D, Morris MA, Bøggild P, Ndoni S. 2015. High quality sub-10 nm graphene nanoribbons by on-chip PS-b-PDMS block copolymer lithography. *RSC Advances*. 5(82):66711-66717. <https://doi.org/10.1039/c5ra11735f>

Bodrova A, Chechkin AV, Cherstvy AG, Metzler R. 2015. Quantifying non-ergodic dynamics of force-free granular gases. *Physical Chemistry Chemical Physics*. 17(34):21791-21798. <https://doi.org/10.1039/c5cp02824h>

Virkki K, Demir S, Lemmetyinen H, Tkachenko NV. 2015. Photoinduced Electron Transfer in CdSe/ZnS Quantum Dot-Fullerene Hybrids. *Journal of Physical Chemistry C*. 119(31):17561-17572. <https://doi.org/10.1021/acs.jpcc.5b04251>

Rahaman O, Kalimeri M, Melchionna S, Hénin J, Sterpone F. 2015. Role of Internal Water on Protein Thermal Stability: The Case of Homologous G Domains. *Journal of Physical Chemistry Part B*. 119(29):8939-8949. <https://doi.org/10.1021/jp507571u>

Çetinkaya AY, Köroğlu EO, Demir NM, Baysoy DY, Özkaya B, Çakmakçı M. 2015. Electricity production by a microbial fuel cell fueled by brewery wastewater and the factors in its membrane deterioration. *Chinese Journal of Catalysis*. 36(7):1068-1076. [https://doi.org/10.1016/S1872-2067\(15\)60833-6](https://doi.org/10.1016/S1872-2067(15)60833-6)

Hakkarainen TV, Schramm A, Mäkelä J, Laukkanen P, Guina M. 2015. Lithography-free oxide patterns as templates for self-catalyzed growth of highly uniform GaAs nanowires on Si(111). *Nanotechnology*. 26(27). <https://doi.org/10.1088/0957-4484/26/27/275301>

Isoniemi T, Tuukkanen S, Cameron DC, Simonen J, Toppari JJ. 2015. Measuring optical anisotropy in poly(3,4-ethylene dioxythiophene): poly(styrene sulfonate) films with added graphene. *Organic Electronics*. 25:317-323. <https://doi.org/10.1016/j.orgel.2015.06.037>, <https://doi.org/10.1016/j.orgel.2015.06.037>

Ahmed Z, George L, Hiltunen A, Lemmetyinen H, Hukka T, Efimov A. 2015. Synthesis and study of electrochemical and optical properties of substituted perylenemonoimides in solutions and on solid surfaces. *Journal of Materials Chemistry A*. 3(25):13332-13339. <https://doi.org/10.1039/c5ta02241j>

Sanginés R, Contreras V, Sobral H, Robledo-Martinez A. 2015. Optimal emission enhancement in orthogonal double-pulse laser-induced breakdown spectroscopy. *Spectrochimica Acta Part B: Atomic Spectroscopy*. 110:139-145. <https://doi.org/10.1016/j.sab.2015.06.012>

Mylläri V, Ruoko T-P, Syrjäälä S. 2015. A comparison of rheology and FTIR in the study of polypropylene and polystyrene photodegradation. *Journal of Applied Polymer Science*. 132(28). <https://doi.org/10.1002/app.42246>

Zorzi GK, Párraga JE, Seijo B, Sánchez A. 2015. On the biomaterials for nanostructured ocular therapeutics. *Current Organic Chemistry*. 19(15):1443-1459.

Abou-Chahine F, Fujii D, Imahori H, Nakano H, Tkachenko NV, Matano Y, Lemmetyinen H. 2015. Synthesis and Photophysical Properties of Two Diazaporphyrin-Porphyrin Hetero Dimers in Polar and Nonpolar Solutions. *Journal of Physical Chemistry Part B*. 119(24):7328-7337. <https://doi.org/10.1021/jp510903a>

Perander M, DeMartini N, Brink A, Kramb J, Karlström O, Hemming J, Moilanen A, Konttinen J, Hupa M. 2015. Catalytic effect of Ca and K on CO<sub>2</sub> gasification of spruce wood char. *Fuel*. 150:464-472. <https://doi.org/10.1016/j.fuel.2015.02.062>

De Carvalho SJ, Metzler R, Cherstvy AG. 2015. Inverted critical adsorption of polyelectrolytes in confinement. *Soft Matter*. 11(22):4430-4443. <https://doi.org/10.1039/c5sm00635j>

Dzieciuch M, Rissanen S, Szydłowska N, Bunker A, Kumorek M, Jamróz D, Vattulainen I, Nowakowska M, Róg T, Kepczynski M. 2015. PEGylated liposomes as carriers of hydrophobic porphyrins. *Journal of Physical Chemistry Part B*. 119(22):6646-6657. <https://doi.org/10.1021/acs.jpcc.5b01351>

Manea LR, Cramariuc B, Popescu V, Cramariuc R, Sandu I, Cramariuc O. 2015. Equipment for obtaining polymeric nanofibres by electrospinning technology: II. The obtaining of polymeric nanofibers. *Materiale Plastice*. 52(2):180-185.

He X, Benniston AC, Saarenpää H, Lemmetyinen H, Tkachenko NV, Baisch U. 2015. Polymorph crystal packing effects on charge transfer emission in the solid state. *Chemical Science*. 6(6):3525-3532. <https://doi.org/10.1039/c5sc01151e>

Mordon S, Bourg-Heckly G. 2015. Photodiagnostic et chirurgie guidés par la fluorescence. *ACTUALITE CHIMIQUE*. (397-398):41-45.

Borah D, Rasappa S, Salaun M, Zellsman M, Lorret O, Liontos G, Ntetsikas K, Avgeropoulos A, Morris MA. 2015. Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned poss substrates fabricated by nanoimprint lithography. *Advanced Functional Materials*. 25(22):3425-3432. <https://doi.org/10.1002/adfm.201500100>

Frochot C, Barberi-Heyob M, Blanchard-Desce M, Bolotine L, Bonneau S, Jimenez CM, Durand JO, Lassalle HP, Lemercier G, Mordon S, Maillard P, Sol V, Vever-Bizet C, Vicendo P. 2015. La thérapie photodynamique: État de l'art et perspectives. *ACTUALITE CHIMIQUE*. (397-398):46-50.

McManamon C, O'Connell J, Delaney P, Rasappa S, Holmes JD, Morris MA. 2015. A facile route to synthesis of S-doped TiO<sub>2</sub> nanoparticles for photocatalytic activity. *Journal of Molecular Catalysis A: Chemical*. 406:51-57!. <https://doi.org/10.1016/j.molcata.2015.05.002>

Hladílková J, Fischer HE, Jungwirth P, Mason PE. 2015. Hydration of hydroxyl and amino groups examined by molecular dynamics and neutron scattering. *Journal of Physical Chemistry Part B*. 119(21):6357-6365. <https://doi.org/10.1021/jp510528u>

Kuz'min VA, Durandin NA, Lisitsyna ES, Nekipelova TD, Podrugina TA, Matveeva ED, Proskurnina MV, Zefirov NS. 2015. Spectral and kinetic characteristics of indotricarbocyanine complexation with albumin. *DOKLADY PHYSICAL CHEMISTRY*. 462(1):107-109. <https://doi.org/10.1134/S0012501615050036>

Song X, Liu Z, Suhonen T, Varis T, Huang L, Zheng X, Zeng Y. 2015. Effect of melting state on the thermal shock resistance and thermal conductivity of APS ZrO<sub>2</sub>-7.5wt.% Y<sub>2</sub>O<sub>3</sub> coatings. *Surface and Coatings Technology*. 270:132-138. <https://doi.org/10.1016/j.surfcoat.2015.03.011>

Pluhařová E, Slavíček P, Jungwirth P. 2015. Modeling photoionization of aqueous DNA and its components. *Accounts of Chemical Research*. 48(5):1209-1217. <https://doi.org/10.1021/ar500366z>

Liang Y, Ma L, Wang J, Wang G. 2015. Multistep reactions of water with small Pd<sub>n</sub> clusters: A first principles study. *Journal of Theoretical and Computational Chemistry*. 14(3). <https://doi.org/10.1142/S0219633615500170>

Kuzmin VA, Durandin NA, Lisitsyna ES, Litvinkova LV, Nekipelova TD, Podrugina TA, Matveeva ED, Proskurnina MV, Zefirov NS. 2015. Energy degradation in photoexcited complexes of indocarbocyanine with albumin. *HIGH ENERGY CHEMISTRY*. 49(3):211-212. <https://doi.org/10.1134/S0018143915030108>

Cherstvy AG, Metzler R. 2015. Ergodicity breaking and particle spreading in noisy heterogeneous diffusion processes. *Journal of Chemical Physics*. 142(14). <https://doi.org/10.1063/1.4917077>

Koivisto AJ, Aromaa M, Koponen IK, Fransman W, Jensen KA, Mäkelä JM, Hämeri KJ. 2015. Workplace performance of a loose-fitting powered air purifying respirator during nanoparticle synthesis. *Journal of Nanoparticle Research*. 17(4). <https://doi.org/10.1007/s11051-015-2990-9>

Sorvajärvi T, Viljanen J, Toivonen J, Marshall P, Glarborg P. 2015. Rate constant and thermochemistry for K + O<sub>2</sub> + N<sub>2</sub> = KO<sub>2</sub> + N<sub>2</sub>. *Journal of Physical Chemistry A*. 119(14):3329-3336. <https://doi.org/10.1021/acs.jpca.5b00755>



- Karilainen T, Timr Š, Vattulainen I, Jungwirth P. 2015. Oxidation of cholesterol does not alter significantly its uptake into high-density lipoprotein particles. *Journal of Physical Chemistry Part B*. 119(13):4594-4600. <https://doi.org/10.1021/acs.jpcc.5b00240>
- Saarikoski E, Rissanen M, Seppälä J. 2015. Effect of rheological properties of dissolved cellulose/microfibrillated cellulose blend suspensions on film forming. *Carbohydrate Polymers*. 119:62-70. <https://doi.org/10.1016/j.carbpol.2014.11.033>
- Pirjola L, Karjalainen P, Heikkilä J, Saari S, Tzamkiozis T, Ntziachristos L, Kulmala K, Keskinen J, Rönkkö T. 2015. Effects of fresh lubricant oils on particle emissions emitted by a modern gasoline direct injection passenger car. *Environmental Science and Technology*. 49(6):3644-3652. <https://doi.org/10.1021/es505109u>
- Bolelli G, Berger LM, Börner T, Koivuluoto H, Lusvarghi L, Lyphout C, Markocsan N, Matikainen V, Nylén P, Sassatelli P, Trache R, Vuoristo P. 2015. Tribology of HVOF- and HVOF-sprayed WC-10Co4Cr hardmetal coatings: A comparative assessment. *Surface and Coatings Technology*. 265:125-144. <https://doi.org/10.1016/j.surfcoat.2015.01.048>
- Varis T, Bankiewicz D, Yrjas P, Oksa M, Suhonen T, Tuurna S, Ruusuvoori K, Holmström S. 2015. High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a KCl-K<sub>2</sub>SO<sub>4</sub> salt mixture. *Surface and Coatings Technology*. 265:235-243. <https://doi.org/10.1016/j.surfcoat.2014.11.012>
- Tuominen M, Yasir M, Lång J, Dahl J, Kuzmin M, Mäkelä J, Punkkinen M, Laukkanen P, Kokko K, Schulte K, Punkkinen R, Korpijärvi V-M, Polojärvi V, Guina M. 2015. Oxidation of the GaAs semiconductor at the Al<sub>2</sub>O<sub>3</sub>/GaAs junction. *Physical Chemistry Chemical Physics*. 17(10):7060-7066. <https://doi.org/10.1039/c4cp05972g>
- Ma L, Melander M, Laasonen K, Akola J. 2015. CO oxidation catalyzed by neutral and anionic Cu<sub>20</sub> clusters: Relationship between charge and activity. *Physical Chemistry Chemical Physics*. 17(10):7067-7076. <https://doi.org/10.1039/c5cp00365b>
- Figueira J, Czardybon W, Mesquita JC, Rodrigues J, Lahoz F, Russo L, Valkonen A, Rissanen K. 2015. Synthesis, characterization and solid-state photoluminescence studies of six alkoxy phenylene ethynylene dinuclear palladium(ii) rods. *DALTON TRANSACTIONS*. 44(9):4003-4015. <https://doi.org/10.1039/c4dt00493k>
- Lolicato F, Raudino A, Milardi D, La Rosa C. 2015. Resveratrol interferes with the aggregation of membrane-bound human-IAPP: A molecular dynamics study. *European Journal of Medicinal Chemistry*. 92:876-881. <https://doi.org/10.1016/j.ejmech.2015.01.047>
- Wecharine I, Valkonen A, Rzaigui M, Sta WS, Smith G. 2015. Crystal structure of 2-methylpiperazine-1,4-dium bis(hydrogen maleate). *Acta Crystallographica Section E : Structure Reports Online*. 71(3):o193-o194. <https://doi.org/10.1107/S2056989015003102>
- Eshwaran SB, Basu D, Vaikuntam SR, Kutlu B, Wiessner S, Das A, Naskar K, Heinrich G. 2015. Exploring the role of stearic acid in modified zinc aluminum layered double hydroxides and their acrylonitrile butadiene rubber nanocomposites. *Journal of Applied Polymer Science*. 132(9). <https://doi.org/10.1002/app.41539>
- Shin J, Cherstvy AG, Metzler R. 2015. Polymer looping is controlled by macromolecular crowding, spatial confinement, and chain stiffness. *ACS Macro Letters*. 4(2):202-206. <https://doi.org/10.1021/mz500709w>
- Ray S, Steven RT, Green FM, Höök F, Taskinen B, Hytönen VP, Shard AG. 2015. Neutralized chimeric avidin binding at a reference biosensor surface. *Langmuir*. 31(6):1921-1930. <https://doi.org/10.1021/la503213f>
- Beyeh NK, Pan F, Valkonen A, Rissanen K. 2015. Encapsulation of secondary and tertiary ammonium salts by resorcinarenes and pyrogallarenes: The effect of size and charge concentration. *CrystEngComm*. 17(5):1182-1188. <https://doi.org/10.1039/c4ce01927j>

Bautista G, Mäkitalo J, Chen Y, Dhaka V, Grasso M, Karvonen L, Jiang H, Huttunen MJ, Huhtio T, Lipsanen H, Kauranen M. 2015. Second-harmonic generation imaging of semiconductor nanowires with focused vector beams. *Nano Letters*. 15(3):1564-1569. <https://doi.org/10.1021/nl503984b>

Fatarelle E, Mylläri V, Ruzzante M, Pogni R, Baratto MC, Skrifvars M, Syrjälä S, Järvelä P. 2015. Sulfonated polyetheretherketone/polypropylene polymer blends for the production of photoactive materials. *Journal of Applied Polymer Science*. 132(8). <https://doi.org/10.1002/app.41509>

Saccone M, Dichiarante V, Forni A, Goulet-Hanssens A, Cavallo G, Vapaavuori J, Terraneo G, Barrett CJ, Resnati G, Metrangolo P, Priimägi A. 2015. Supramolecular hierarchy among halogen and hydrogen bond donors in light-induced surface patterning. *Journal of Materials Chemistry C*. 3:759-768. <https://doi.org/10.1039/c4tc02315c>

Goh J-Q, Malola S, Häkkinen H, Akola J. 2015. Silver sulfide nanoclusters and the superatom model. *Journal of Physical Chemistry C*. 119(3):1583-1590. <https://doi.org/10.1021/jp511037x>

Shin J, Cherstvy AG, Metzler R. 2015. Kinetics of polymer looping with macromolecular crowding: Effects of volume fraction and crowder size. *Soft Matter*. 11(3):472-488. <https://doi.org/10.1039/c4sm02007c>

Ghosh SK, Cherstvy AG, Metzler R. 2015. Non-universal tracer diffusion in crowded media of non-inert obstacles. *Physical Chemistry Chemical Physics*. 17(3):1847-1858. <https://doi.org/10.1039/c4cp03599b>

Li Z, Le T, Wu Z, Yao Y, Li L, Tentzeris M, Moon KS, Wong CP. 2015. Rational design of a printable, highly conductive silicone-based electrically conductive adhesive for stretchable radio-frequency antennas. *Advanced Functional Materials*. 25(3):464-470. <https://doi.org/10.1002/adfm.201403275>

Czaplicki R, Mäkitalo J, Siikanen R, Husu H, Lehtolahti J, Kuittinen M, Kauranen M. 2015. Second-Harmonic Generation from Metal Nanoparticles: Resonance Enhancement versus Particle Geometry. *Nano Letters*. 15(1):530-534. <https://doi.org/10.1021/nl503901e>

Schroeder CA, Pluharová E, Seidel R, Schroeder WP, Faubel M, Slavíček P, Winter B, Jungwirth P, Bradforth SE. 2015. Oxidation half-reaction of aqueous nucleosides and nucleotides via photoelectron spectroscopy augmented by ab initio calculations. *Journal of the American Chemical Society*. 137(1):201-209. <https://doi.org/10.1021/ja508149e>

Khan M, Yang J, Shi C, Feng Y, Zhang W, Gibney K, Tew GN. 2015. Manipulation of polycarbonate urethane bulk properties via incorporated zwitterionic polynorbornene for tissue engineering application. *RSC Advances*. 5(15):11284-11292. <https://doi.org/10.1039/C4RA14608E>

Reeta PS, Khetubol A, Jella T, Chukharev V, Abou-Chahine F, Tkachenko NV, Giribabu L, Lemmetyinen H. 2015. Photophysical properties of Sn (IV)tetraphenylporphyrin-pyrene dyad with a  $\beta$ -vinyl linker. *Journal of Porphyrins and Phthalocyanines*. 19(1-3):288-300. <https://doi.org/10.1142/S1088424615500108>

Yi H, Albrecht M, Valkonen A, Rissanen K. 2015. Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as  $\pi$ -acceptors for anions. *New Journal of Chemistry*. 39(1):746-749. <https://doi.org/10.1039/c4nj01654h>

Mettänen M, Hirn U. 2015. A comparison of five optical surface topography measurement methods. *TAPPI Journal*. 14(1):27-38.

Hukka JJ, Katko TS. 2015. Appropriate pricing policy needed worldwide for improving water services infrastructure. *Journal American Water Works Association*. 107(1):E37-E46. <https://doi.org/10.5942/jawwa.2015.107.0007>

Nazir R, Bourquard F, Balčiūnas E, Smoleń S, Gray D, Tkachenko NV, Farsari M, Gryko DT. 2015.  $\pi$ -Expanded  $\alpha,\beta$ -unsaturated ketones: Synthesis, optical properties, and two-photon-induced polymerization. *ChemPhysChem*. 16(3):682-690. <https://doi.org/10.1002/cphc.201402646>

Pelado B, Abou-Chahine F, Calbo J, Caballero R, delaCruz P, Junquera-Hernández JM, Ortí E, Tkachenko NV, Langa F. 2015. Role of the bridge in photoinduced electron transfer in porphyrin-fullerene dyads. *Chemistry: A European Journal*. 21(15):5814-5825. <https://doi.org/10.1002/chem.201406514>

Molnar W, Nugent S, Lindroos M, Apostol M, Varga M. 2015. Ballistic and numerical simulation of impacting goods on conveyor belt rubber. *Polymer Testing*. 42:1-7. <https://doi.org/10.1016/j.polymertesting.2014.12.001>

Stasyuk AJ, Smoleń S, Glodkowska-Mrowka E, Brutkowski W, Cyrański MK, Tkachenko N, Gryko DT. 2015. Synthesis of fluorescent naphthoquinolizines via intramolecular houben-hoesch reaction. *Chemistry - An Asian Journal*. 10(3):553-558. <https://doi.org/10.1002/asia.201403339>

Wacharine I, Valkonen A, Rzaigui M, Smirani W. 2015. Synthesis, crystal structure, spectral, dielectric characteristics and conduction mechanism of two novel carboxylates of 1-benzhydrylpiperazine. *Monatshefte fur Chemie*. 146(12):2007-2020. <https://doi.org/10.1007/s00706-015-1553-1>

Di Capua F, Papirio S, Lens PNL, Esposito G. 2015. Chemolithotrophic denitrification in biofilm reactors. *Chemical Engineering Journal*. 280:643-657. <https://doi.org/10.1016/j.cej.2015.05.131>

Karilainen T, Cramariuc O, Kuisma M, Tappura K, Hukka TI. 2015. Van der Waals interactions are critical in Car-Parrinello molecular dynamics simulations of porphyrin-fullerene dyads. *Journal of Computational Chemistry*. 36(9):612-621. <https://doi.org/10.1002/jcc.23834>

Kamppuri T, Vehviläinen M, Puolakka A, Honkanen M, Vippola M, Rissanen M. 2015. Characterisation of novel regenerated cellulosic, viscose, and cotton fibres and the dyeing properties of fabrics. *Coloration Technology*. 131(5):396-402. <https://doi.org/10.1111/cote.12163>

Mardoukhi Y, Jeon J-H, Metzler R. 2015. Geometry controlled anomalous diffusion in random fractal geometries: Looking beyond the infinite cluster. *Physical Chemistry Chemical Physics*. 17(44):30134-30147. <https://doi.org/10.1039/c5cp03548a>

Stumpel JE, Gil ER, Spoelstra AB, Bastiaansen CWM, Broer DJ, Schenning APHJ. 2015. Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels. *Advanced Functional Materials*. 25(22):3314-3320. <https://doi.org/10.1002/adfm.201500745>

Stumpel JE, Broer DJ, Schenning APHJ. 2015. Water-responsive dual-coloured photonic polymer coatings based on cholesteric liquid crystals. *RSC Advances*. 5(115):94650-94653. <https://doi.org/10.1039/c5ra18017a>

Mason PE, Uhlig F, Vaněk V, Buttersack T, Bauerecker S, Jungwirth P. 2015. Coulomb explosion during the early stages of the reaction of alkali metals with water. *Nature Chemistry*. 7(3):250-254. <https://doi.org/10.1038/nchem.2161>

Borah D, Rasappa S, Senthamaraiannan R, Holmes JD, Morris MA. 2015. Block co-polymers for nanolithography: Rapid microwave annealing for pattern formation on substrates. *Polymers*. 7(4):592-609. <https://doi.org/10.3390/polym7040592>

Taskinen B, Zauner D, Lehtonen SI, Koskinen M, Thomson C, Kähkönen N, Kukkurainen S, Määttä JAE, Ihalainen TO, Kulomaa MS, Gruber HJ, Hytönen VP. 2014. Switchavidin: Reversible biotin-avidin-biotin bridges with high affinity and specificity. *Bioconjugate Chemistry*. 25(12):2233-2243. <https://doi.org/10.1021/bc500462w>

Palivec V, Pluharová E, Unger I, Winter B, Jungwirth P. 2014. DNA lesion can facilitate base ionization: Vertical ionization energies of aqueous 8-oxoguanine and its nucleoside and nucleotide. *Journal of Physical Chemistry Part B*. 118(48):13833-13837. <https://doi.org/10.1021/jp5111086>

- Lemmettyinen H, Tkachenko NV, Valeur B, Hotta JI, Ameloot M, Ernsting NP, Gustavsson T, Boens N. 2014. Time-resolved fluorescence methods (IUPAC technical report). *Pure and Applied Chemistry*. 86(12):1969-1998. <https://doi.org/10.1515/pac-2013-0912>
- Tawade BV, Salunke JK, Sane PS, Wadgaonkar PP. 2014. Processable aromatic polyesters based on bisphenol derived from cashew nut shell liquid: synthesis and characterization. *JOURNAL OF POLYMER RESEARCH*. 21(12). <https://doi.org/10.1007/s10965-014-0617-y>
- Mohanty AK, Ghosh A, Sawai P, Pareek K, Banerjee S, Das A, Pötschke P, Heinrich G, Voit B. 2014. Electromagnetic interference shielding effectiveness of MWCNT filled poly(ether sulfone) and poly(ether imide) nanocomposites. *Polymer Engineering and Science*. 54(11):2560-2570. <https://doi.org/10.1002/pen.23804>
- Wang X, Vapaavuori J, Zhao Y, Bazuin CG. 2014. A supramolecular approach to photoresponsive thermo/solvoplastic block copolymer elastomers. *Macromolecules*. 47(20):7099-7108. <https://doi.org/10.1021/ma501278b>
- Amanatidis S, Ntziachristos L, Giechaskiel B, Bergmann A, Samaras Z. 2014. Impact of selective catalytic reduction on exhaust particle formation over excess ammonia events. *Environmental Science and Technology*. 48(19):11527-11534. <https://doi.org/10.1021/es502895v>
- Deng Y, Alicea-Velázquez NL, Bannwarth L, Lehtonen SI, Boggon TJ, Cheng HC, Hytönen VP, Turk BE. 2014. Global analysis of human nonreceptor tyrosine kinase specificity using high-density peptide microarrays. *Journal of Proteome Research*. 13(10):4339-4346. <https://doi.org/10.1021/pr500503q>
- Rasappa S, Schulte L, Borah D, Morris MA, Ndoni S. 2014. Rapid, Brushless Self-assembly of a PS-b-PDMS Block Copolymer for Nanolithography. *Colloids and Interface Science Communications*. 2:1-5. <https://doi.org/10.1016/j.colcom.2014.07.001>
- Goulet-Hanssens A, Corkery TC, Priimagi A, Barrett CJ. 2014. Effect of head group size on the photoswitching applications of azobenzene Disperse Red 1 analogues. *Journal of Materials Chemistry C*. 2(36):7505-7512. <https://doi.org/10.1039/c4tc00996g>
- Salunke JK, Sonar P, Wong FL, Roy VAL, Lee CS, Wadgaonkar PP. 2014. Pyrene based conjugated materials: Synthesis, characterization and electroluminescent properties. *Physical Chemistry Chemical Physics*. 16(42):23320-23328. <https://doi.org/10.1039/c4cp03693j>
- Wang J, Ma L, Liang Y, Gao M, Wang G. 2014. Density functional theory study of transition metals doped B<sub>80</sub> fullerene. *Journal of Theoretical and Computational Chemistry*. 13(6). <https://doi.org/10.1142/S0219633614500503>
- Priimagi A, Barrett CJ, Shishido A. 2014. Recent twists in photoactuation and photoalignment control. *Journal of Materials Chemistry C*. 2(35):7155-7162. <https://doi.org/10.1039/c4tc01236d>
- Uhlig F, Herbert JM, Coons MP, Jungwirth P. 2014. Optical spectroscopy of the bulk and interfacial hydrated electron from ab initio calculations. *Journal of Physical Chemistry A*. 118(35):7507-7515. <https://doi.org/10.1021/jp5004243>
- Le HH, Abhijeet S, Ilisch S, Klehm J, Henning S, Beiner M, Sarkawi SS, Dierkes W, Das A, Fischer D, Stöckelhuber KW, Wiessner S, Khatiwada SP, Adhikari R, Pham T, Heinrich G, Radsch HJ. 2014. The role of linked phospholipids in the rubber-filler interaction in carbon nanotube (CNT) filled natural rubber (NR) composites. *Polymer*. 55(18):4738-4747. <https://doi.org/10.1016/j.polymer.2014.07.043>
- Kapgate BP, Das C, Basu D, Das A, Heinrich G, Reuter U. 2014. Effect of silane integrated sol-gel derived in situ silica on the properties of nitrile rubber. *Journal of Applied Polymer Science*. 131(15). <https://doi.org/10.1002/app.40531>
- Kurppa K, Hytönen VP, Nakari-Setälä T, Kulomaa MS, Linder MB. 2014. Molecular engineering of avidin and hydrophobin for functional self-assembling interfaces. *Colloids and Surfaces B: Biointerfaces*. 120:102-109. <https://doi.org/10.1016/j.colsurfb.2014.05.010>

Oksa M, Varis T, Ruusuvaori K. 2014. Performance testing of iron based thermally sprayed HVOF coatings in a biomass-fired fluidised bed boiler. *Surface and Coatings Technology*. 251:191-200. <https://doi.org/10.1016/j.surfcoat.2014.04.025>

Kohagen M, Mason PE, Jungwirth P. 2014. Accurate description of calcium solvation in concentrated aqueous solutions. *Journal of Physical Chemistry Part B*. 118(28):7902-7909. <https://doi.org/10.1021/jp5005693>

Werner J, Wernersson E, Ekholm V, Ottosson N, Öhrwall G, Heyda J, Persson I, Söderström J, Jungwirth P, Björneholm O. 2014. Surface behavior of hydrated guanidinium and ammonium ions: A comparative study by photoelectron spectroscopy and molecular dynamics. *Journal of Physical Chemistry Part B*. 118(25):7119-7127. <https://doi.org/10.1021/jp500867w>

Mahmood N, Khan AU, Stöckelhuber KW, Das A, Jehnichen D, Heinrich G. 2014. Carbon nanotubes-filled thermoplastic polyurethane-urea and carboxylated acrylonitrile butadiene rubber blend nanocomposites. *Journal of Applied Polymer Science*. 131(11). <https://doi.org/10.1002/app.40341>

Pluhařová E, Fischer HE, Mason PE, Jungwirth P. 2014. Hydration of the chloride ion in concentrated aqueous solutions using neutron scattering and molecular dynamics. *Molecular Physics*. 112(9-10):1230-1240. <https://doi.org/10.1080/00268976.2013.875231>

Raghuwanshi S, Deswal D, Karp M, Kuhad RC. 2014. Bioprocessing of enhanced cellulase production from a mutant of *Trichoderma asperellum* RCK2011 and its application in hydrolysis of cellulose. *Fuel*. 124:183-189. <https://doi.org/10.1016/j.fuel.2014.01.107>

Koskela JE, Liljeström V, Lim J, Simanek EE, Ras RHA, Priimagi A, Kostianen MA. 2014. Light-fuelled transport of large dendrimers and proteins. *Journal of the American Chemical Society*. 136(19):6850-6853. <https://doi.org/10.1021/ja502623m>

Kuzmin MG, Soboleva IV, Durandin NA, Lisitsyna ES, Kuzmin VA. 2014. Microphase mechanism of "superquenching" of luminescent probes in aqueous solutions of DNA and some other polyelectrolytes. *Journal of Physical Chemistry Part B*. 118(15):4245-4252. <https://doi.org/10.1021/jp500713q>

Hytönen VP, Wehrle-Haller B. 2014. Protein conformation as a regulator of cell-matrix adhesion. *Physical Chemistry Chemical Physics*. 16(14):6342-6357. <https://doi.org/10.1039/c3cp54884h>

Kulig W, Agmon N. 2014. Deciphering the infrared spectrum of the protonated water pentamer and the hybrid Eigen-Zundel cation. *Physical Chemistry Chemical Physics*. 16(10):4933-4941. <https://doi.org/10.1039/c3cp54029d>

Khan MN, Zharnikov M. 2014. Fabrication of ssDNA/oligo(ethylene glycol) monolayers by promoted exchange reaction with thiol and disulfide substituents. *Journal of Physical Chemistry C*. 118(6):3093-3101. <https://doi.org/10.1021/jp411353f>

Priimagi A, Shevchenko A. 2014. Azopolymer-based micro- and nanopatterning for photonic applications. *Journal of Polymer Science. Part B, Polymer Physics*. 52(3):163-182. <https://doi.org/10.1002/polb.23390>

Kulig W, Agmon N. 2014. Both zundel and eigen isomers contribute to the IR spectrum of the gas-phase H<sub>9</sub>O<sub>4</sub> + cluster. *Journal of Physical Chemistry Part B*. 118(1):278-286. <https://doi.org/10.1021/jp410446d>

Oksala NKJ, Ekmekçi FG, Özsoy E, Kirankaya Ş, Kokkola T, Emecen G, Lappalainen J, Kaarniranta K, Atalay M. 2014. Natural thermal adaptation increases heat shock protein levels and decreases oxidative stress. *REDOX BIOLOGY*. 3:25-28. <https://doi.org/10.1016/j.redox.2014.10.003>

Enkavi G, Li J, Wen P, Thangapandian S, Moradi M, Jiang T, Han W, Tajkhorshid E. 2014. A microscopic view of the mechanisms of active transport across the cellular membrane. *Annual Reports in Computational Chemistry*. 10:77-125. <https://doi.org/10.1016/B978-0-444-63378-1.00004-5>

Savolainen J, Uhlig F, Ahmed S, Hamm P, Jungwirth P. 2014. Direct observation of the collapse of the delocalized excess electron in water. *Nature Chemistry*. 6(8):697-701. <https://doi.org/10.1038/nchem.1995>

Wang J, Ray AK. 2014. A full-potential linearized augmented plane wave study of the interaction of CO<sub>2</sub> with  $\alpha$ -Pu (020) surface nanolayers. *Journal of Computational and Theoretical Nanoscience*. 11(7):1710-1717. <https://doi.org/10.1166/jctn.2014.3555>

Jungwirth P. 2014. Molekuly a ionty v pohybu: Počítačové simulace biochemických a biofyzikálních procesů. *Chemické Listy*. 108(4):278-284.

Airiskallio E, Nurmi E, Väyrynen IJ, Kokko K, Ropo M, Punkkinen MPJ, Johansson B, Vitos L. 2014. Magnetic origin of the chemical balance in alloyed Fe-Cr stainless steels: First-principles and Ising model study. *Computational Materials Science*. 92:135-140. <https://doi.org/10.1016/j.commatsci.2014.05.036>

Le HH, Parsekar M, Ilisch S, Henning S, Das A, Stöckelhuber KW, Beiner M, Ho CA, Adhikari R, Wießner S, Heinrich G, Radosch HJ. 2014. Effect of non-rubber components of NR on the carbon nanotube (CNT) localization in SBR/NR blends. *Macromolecular Materials and Engineering*. 299(5):569-582. <https://doi.org/10.1002/mame.201300254>

Akimova AV, Grin MA, Golovina GV, Kokrashvili TA, Vinogradov AM, Mironov AF, Rychkov GN, Shtil AA, Kuzmin VA, Durandin NA. 2014. Novel derivatives of bacteriochlorophyll a: Complex formation with albumin and the mechanism of tumor cell photodamage. *DOKLADY BIOCHEMISTRY AND BIOPHYSICS*. 454(1):17-20. <https://doi.org/10.1134/S1607672914010062>

Rasappa S, Borah D, Senthamaraiannan R, Faulkner CC, Holmes JD, Morris MA. 2014. Fabrication of 3-D nanodimensioned electric double layer capacitor structures using block copolymer templates. *Journal Nanoscience and Nanotechnology*. 14(7):5221-5227. <https://doi.org/10.1166/jnn.2014.8668>

Mokarian-Tabari P, Cummins C, Rasappa S, Simao C, Torres CMS, Holmes JD, Morris MA. 2014. Study of the kinetics and mechanism of rapid self-assembly in block copolymer thin films during solvo-microwave annealing. *Langmuir*. 30(35):10728-10739. <https://doi.org/10.1021/la503137q>

Näreoja T, Ebner A, Gruber HJ, Taskinen B, Kienberger F, Hänninen PE, Hytönen VP, Hinterdorfer P, Härmä H. 2014. Kinetics of bioconjugate nanoparticle label binding in a sandwich-type immunoassay. *Analytical and Bioanalytical Chemistry*. 406(2):493-503. <https://doi.org/10.1007/s00216-013-7474-0>

Cummins C, Borah D, Rasappa S, Chaudhari A, Ghoshal T, O'Driscoll BMD, Carolan P, Petkov N, Holmes JD, Morris MA. 2013. Self-assembly of polystyrene-block-poly(4-vinylpyridine) block copolymer on molecularly functionalized silicon substrates: Fabrication of inorganic nanostructured etchmask for lithographic use. *Journal of Materials Chemistry C*. 1(47):7941-7951. <https://doi.org/10.1039/c3tc31498g>

Häkkinen MR, Roine A, Auriola S, Tuokko A, Veskimäe E, Keinänen TA, Lehtimäki T, Oksala N, Vepsäläinen J. 2013. Analysis of free, mono- and diacetylated polyamines from human urine by LC-MS/MS. *JOURNAL OF CHROMATOGRAPHY B: ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES*. 941:81-89. <https://doi.org/10.1016/j.jchromb.2013.10.009>

Le HH, Oßwald K, Wießner S, Das A, Stöckelhuber KW, Boldt R, Gupta G, Heinrich G, Radosch HJ. 2013. Location of dispersing agent in rubber nanocomposites during mixing process. *Polymer*. 54(26):7009-7021. <https://doi.org/10.1016/j.polymer.2013.10.038>

German SJ, Behbahani M, Miettinen S, Grijpma DW, Haimi SP. 2013. Proliferation and differentiation of adipose stem cells towards smooth muscle cells on poly(trimethylene carbonate) membranes. *Macromolecular symposia*. 334(1):133-142. <https://doi.org/10.1002/masy.201300100>

Diban N, Haimi SP, Bolhuis-Versteeg L, Teixeira S, Miettinen S, Poot AA, Grijpma DW, Stamatialis D. 2013. Effect of surface morphology of poly( $\epsilon$ -caprolactone) scaffolds on adipose stem cell adhesion and proliferation. *Macromolecular symposia*. 334(1):126-132. <https://doi.org/10.1002/masy.201300106>

Gebraad AWH, Miettinen S, Grijpma DW, Haimi SP. 2013. Human adipose stem cells in chondrogenic differentiation medium without growth factors differentiate towards annulus fibrosus phenotype in vitro. *Macromolecular symposia*. 334(1):49-56. <https://doi.org/10.1002/masy.201300104>

Khan MN, Zharnikov M. 2013. Fabrication of ssDNA/Oligo(ethylene glycol) monolayers and patterns by exchange reaction promoted by ultraviolet light irradiation. *Journal of Physical Chemistry C*. 117(47):24883-24893. <https://doi.org/10.1021/jp408819k>

Hladilkova J, Prokop Z, Chaloupkova R, Damborsky J, Jungwirth P. 2013. Release of halide ions from the buried active site of the haloalkane dehalogenase LinB revealed by stopped-flow fluorescence analysis and free energy calculations. *Journal of Physical Chemistry Part B*. 117(46):14329-14335. <https://doi.org/10.1021/jp409040u>

Pluhařová E, Mason PE, Jungwirth P. 2013. Ion pairing in aqueous lithium salt solutions with monovalent and divalent counter-anions. *Journal of Physical Chemistry A*. 117(46):11766-11773. <https://doi.org/10.1021/jp402532e>

Priimagi A, Cavallo G, Metrangolo P, Resnati G. 2013. The Halogen Bond in the Design of Functional Supramolecular Materials: Recent Advances. *Accounts of Chemical Research*. 46(11):2686-2695. <https://doi.org/10.1021/ar400103r>

Kalimeri M, Rahaman O, Melchionna S, Sterpone F. 2013. How conformational flexibility stabilizes the hyperthermophilic elongation factor G-domain. *Journal of Physical Chemistry Part B*. 117(44):13775-13785. <https://doi.org/10.1021/jp407078z>

Uhlig F, Jungwirth P. 2013. Embedded cluster models for reactivity of the hydrated electron. *ZEITSCHRIFT FÜR PHYSIKALISCHE CHEMIE-INTERNATIONAL JOURNAL OF RESEARCH IN PHYSICAL CHEMISTRY AND CHEMICAL PHYSICS*. 227(11):1583-1593. <https://doi.org/10.1524/zpch.2013.0402>

Borah D, Simao CD, Sentharamaikkannan R, Rasappa S, Francone A, Lorret O, Salaun M, Kosmala B, Kehagias N, Zelsmann M, Sotomayor-Torres CM, Morris MA. 2013. Soft-graphoepitaxy using nanoimprinted polyhedral oligomeric silsesquioxane substrates for the directed self-Assembly of PS-b-PDMS. *European Polymer Journal*. 49(11):3512-3521. <https://doi.org/10.1016/j.eurpolymj.2013.08.011>

Niskanen M, Kuisma M, Cramariuc O, Golovanov V, Hukka TI, Tkachenko N, Rantala TT. 2013. Porphyrin adsorbed on the (1010) surface of the wurtzite structure of ZnO-conformation induced effects on the electron transfer characteristics. *Physical Chemistry Chemical Physics*. 15(40):17408-17418. <https://doi.org/10.1039/c3cp51685g>

Pollheimer P, Taskinen B, Scherfler A, Gusenkov S, Creus M, Wiesauer P, Zauner D, Schöfberger W, Schwarzinger C, Ebner A, Tampé R, Stutz H, Hytönen VP, Gruber HJ. 2013. Reversible biofunctionalization of surfaces with a switchable mutant of avidin. *Bioconjugate Chemistry*. 24(10):1656-1668. <https://doi.org/10.1021/bc400087e>

Sterpone F, Nguyen PH, Kalimeri M, Derreumaux P. 2013. Importance of the ion-pair interactions in the OPEP coarse-grained force field: Parametrization and validation. *Journal of Chemical Theory and Computation*. 9(10):4574-4584. <https://doi.org/10.1021/ct4003493>

Laitaoja M, Valjakka J, Jänis J. 2013. Zinc coordination spheres in protein structures. *Inorganic Chemistry*. 52(19):10983-10991. <https://doi.org/10.1021/ic401072d>

Khan MN, Tjong V, Chilkoti A, Zharnikov M. 2013. Spectroscopic study of a DNA brush synthesized in situ by surface initiated enzymatic polymerization. *Journal of Physical Chemistry Part B*. 117(34):9929-9938. <https://doi.org/10.1021/jp404774x>

Stirnemann G, Wernersson E, Jungwirth P, Laage D. 2013. Mechanisms of acceleration and retardation of water dynamics by ions. *Journal of the American Chemical Society*. 135(32):11824-11831. <https://doi.org/10.1021/ja405201s>

Khan MN, Zharnikov M. 2013. Irradiation promoted exchange reaction with disulfide substituents. *Journal of Physical Chemistry C*. 117(28):14534-14543. <https://doi.org/10.1021/jp4006026>

Borah D, Rasappa S, Sentharamaikannan R, Holmes JD, Morris MA. 2013. Tuning PDMS brush chemistry by UV-O<sub>3</sub> exposure for PS-b-PDMS microphase separation and directed self-assembly. *Langmuir*. 29(28):8959-8968. <https://doi.org/10.1021/la401561k>

Paterová J, Rembert KB, Heyda J, Kurra Y, Okur HI, Liu WR, Hilty C, Cremer PS, Jungwirth P. 2013. Reversal of the Hofmeister series: Specific ion effects on peptides. *Journal of Physical Chemistry Part B*. 117(27):8150-8158. <https://doi.org/10.1021/jp405683s>

Stumpel JE, Liu D, Broer DJ, Schenning APHJ. 2013. Photoswitchable hydrogel surface topographies by polymerisation-induced diffusion. *Chemistry: A European Journal*. 19(33):10922-10927. <https://doi.org/10.1002/chem.201300852>

Diban N, Haimi S, Bolhuis-Versteeg L, Teixeira S, Miettinen S, Poot A, Grijpma D, Stamatialis D. 2013. Development and characterization of poly( $\epsilon$ -caprolactone) hollow fiber membranes for vascular tissue engineering. *Journal of Membrane Science*. 438:29-37. <https://doi.org/10.1016/j.memsci.2013.03.024>

Gordon TR, Paik T, Klein DR, Naik GV, Caglayan H, Boltasseva A, Murray CB. 2013. Shape-dependent plasmonic response and directed self-assembly in a new semiconductor building block, indium-doped cadmium oxide (ICO). *Nano Letters*. 13(6):2857-2863. <https://doi.org/10.1021/nl4012003>

Gerlofs-Nijland ME, Totlandsdal AI, Tzamkiozis T, Leseman DLAC, Samaras Z, Låg M, Schwarze P, Ntziachristos L, Cassee FR. 2013. Cell toxicity and oxidative potential of engine exhaust particles: Impact of using particulate filter or biodiesel fuel blend. *Environmental Science and Technology*. 47(11):5931-5938. <https://doi.org/10.1021/es305330y>

Štěpánková V, Paterová J, Damborský J, Jungwirth P, Chaloupková R, Heyda J. 2013. Cation-specific effects on enzymatic catalysis driven by interactions at the tunnel mouth. *Journal of Physical Chemistry Part B*. 117(21):6394-6402. <https://doi.org/10.1021/jp401506v>

Pelto JM, Haimi SP, Siljander AS, Miettinen SS, Tappura KM, Higgins MJ, Wallace GG. 2013. Surface properties and interaction forces of biopolymer-doped conductive polypyrrole surfaces by atomic force microscopy. *Langmuir*. 29(20):6099-6108. <https://doi.org/10.1021/la4009366>

McManamon C, Delaney P, Kavanagh C, Wang JJ, Rasappa S, Morris MA. 2013. Depth profiling of PLGA copolymer in a novel biomedical bilayer using confocal Raman spectroscopy. *Langmuir*. 29(19):5905-5910. <https://doi.org/10.1021/la400402a>

Bayr S, Kaparaju P, Rintala J. 2013. Screening pretreatment methods to enhance thermophilic anaerobic digestion of pulp and paper mill wastewater treatment secondary sludge. *Chemical Engineering Journal*. 223:479-486. <https://doi.org/10.1016/j.cej.2013.02.119>

Tan M, Feng Y, Wang H, Zhang L, Khan M, Guo J, Chen Q, Liu J. 2013. Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group. *Macromolecular Research*. 21(5):541-549. <https://doi.org/10.1007/s13233-013-1028-3>

Vapaavuori J, Mahimwalla Z, Chromik RR, Kaivola M, Priimagi A, Barrett CJ. 2013. Nanoindentation study of light-induced softening of supramolecular and covalently functionalized azo polymers. *Journal of Materials Chemistry C*. 1(16):2806-2810. <https://doi.org/10.1039/c3tc30246f>



Rooj S, Das A, Stöckelhuber KW, Wang DY, Galiatsatos V, Heinrich G. 2013. Understanding the reinforcing behavior of expanded clay particles in natural rubber compounds. *Soft Matter*. 9(14):3798-3808. <https://doi.org/10.1039/c3sm27519a>

Pale V, Nikkonen T, Vapaavuori J, Kostianen M, Kavakka J, Selin J, Tittonen I, Helaja J. 2013. Biomimetic zinc chlorin-poly(4-vinylpyridine) assemblies: Doping level dependent emission-absorption regimes. *Journal of Materials Chemistry C*. 1(11):2166-2173. <https://doi.org/10.1039/c3tc00499f>

Ma L, Wang J, Wang G. 2013. Site-specific analysis of dipole polarizabilities of heterogeneous systems: Iron-doped Si<sub>n</sub> (n = 1-14) clusters. *Journal of Chemical Physics*. 138(9). <https://doi.org/10.1063/1.4793276>

Borah D, Ozmen M, Rasappa S, Shaw MT, Holmes JD, Morris MA. 2013. Molecularly functionalized silicon substrates for orientation control of the microphase separation of PS-b-PMMA and PS-b-PDMS block copolymer systems. *Langmuir*. 29(9):2809-2820. <https://doi.org/10.1021/la304140q>

Barboza R, Bortolozzo U, Assanto G, Residori S. 2013. Optical vortex generation in nematic liquid crystal light valves. *Molecular Crystals and Liquid Crystals*. 572(1):24-30. <https://doi.org/10.1080/15421406.2012.763206>

Rasappa S, Borah D, Faulkner CC, Lutz T, Shaw MT, Holmes JD, Morris MA. 2013. Fabrication of a sub-10 nm silicon nanowire based ethanol sensor using block copolymer lithography. *Nanotechnology*. 24(6). <https://doi.org/10.1088/0957-4484/24/6/065503>

Vazdar M, Jungwirth P, Mason PE. 2013. Aqueous guanidinium-carbonate interactions by molecular dynamics and neutron scattering: Relevance to ion-protein interactions. *Journal of Physical Chemistry Part B*. 117(6):1844-1848. <https://doi.org/10.1021/jp310719g>

Fafarman AT, Hong SH, Caglayan H, Ye X, Diroll BT, Paik T, Engheta N, Murray CB, Kagan CR. 2013. Chemically tailored dielectric-to-metal transition for the design of metamaterials from nanoimprinted colloidal nanocrystals. *Nano Letters*. 13(2):350-357. <https://doi.org/10.1021/nl303161d>

Ma L, Ray AK. 2013. Growth behavior and magnetic properties of spherical uranium oxide nanoclusters. *Journal of Computational and Theoretical Nanoscience*. 10(2):334-340. <https://doi.org/10.1166/jctn.2013.2701>

Ma L, Wang J, Hao Y, Wang G. 2013. Density functional theory study of FePd<sub>n</sub> (n = 2-14) clusters and interactions with small molecules. *Computational Materials Science*. 68:166-173. <https://doi.org/10.1016/j.commatsci.2012.10.014>

Subramaniam K, Das A, Simon F, Heinrich G. 2013. Networking of ionic liquid modified CNTs in SSBR. *European Polymer Journal*. 49(2):345-352. <https://doi.org/10.1016/j.eurpolymj.2012.10.023>

Wang H, Feng Y, Zhao H, Fang Z, Khan M, Guo J. 2013. A potential nonthrombogenic small-diameter vascular scaffold with polyurethane/poly(ethylene glycol) hybrid materials by electrospinning technique. *Journal Nanoscience and Nanotechnology*. 13(2):1578-1582. <https://doi.org/10.1166/jnn.2013.6051>

Kulig W, Agmon N. 2013. A 'clusters-in-liquid' method for calculating infrared spectra identifies the proton-transfer mode in acidic aqueous solutions. *Nature Chemistry*. 5(1):29-35. <https://doi.org/10.1038/nchem.1503>

Ylilauri M, Mattila E, Nurminen EM, Käpylä J, Niinehmas SP, Määttä JA, Pentikäinen U, Ivaska J, Pentikäinen OT. 2013. Molecular mechanism of T-cell protein tyrosine phosphatase (TCPTP) activation by mitoxantrone. *Biochimica et biophysica acta: proteins and proteomics*. 1834(10):1988-1997. <https://doi.org/10.1016/j.bbapap.2013.07.001>

Mubarakali D, Praveenkumar R, Shenbagavalli T, Mari Nivetha T, Parveez Ahamed A, Al-Dhabi NA, Thajuddin N. 2012. New reports on anti-bacterial and anti-candidal activities of fatty acid methyl esters (FAME) obtained from *Scenedesmus bijugatus* var. *bicellularis* biomass. *RSC Advances*. 2(30):11552-11556. <https://doi.org/10.1039/c2ra21130k>

Buchholz M, Goletz CM, Grossmann F, Schmidt B, Heyda J, Jungwirth P. 2012. Semiclassical hybrid approach to condensed phase molecular dynamics: Application to the  $I_2Kr_{17}$  cluster. *Journal of Physical Chemistry A*. 116(46):11199-11210. <https://doi.org/10.1021/jp305084f>

Pluhaová E, Marsalek O, Schmidt B, Jungwirth P. 2012. Peptide salt bridge stability: From gas phase via microhydration to bulk water simulations. *Journal of Chemical Physics*. 137(18). <https://doi.org/10.1063/1.4765052>

Ma L, Wang J, Wang G. 2012. Search for global minimum geometries of medium sized  $Cd_nTe_n$  clusters ( $n = 15, 16, 20, 24$  and  $28$ ). *Chemical Physics Letters*. 552:73-77. <https://doi.org/10.1016/j.cplett.2012.09.036>

Pluhařová E, Ončák M, Seidel R, Schroeder C, Schroeder W, Winter B, Bradforth SE, Jungwirth P, Slaviček P. 2012. Transforming anion instability into stability: Contrasting photoionization of three protonation forms of the phosphate ion upon moving into water. *Journal of Physical Chemistry Part B*. 116(44):13254-13264. <https://doi.org/10.1021/jp306348b>

Steinhauser D, Subramaniam K, Das A, Heinrich G, Klüppel M. 2012. Influence of ionic liquids on the dielectric relaxation behavior of CNT based elastomer nanocomposites. *Express Polymer Letters*. 6(11):927-936. <https://doi.org/10.3144/expresspolymlett.2012.98>

Mahimwalla Z, Yager KG, Mamiya JI, Shishido A, Priimagi A, Barrett CJ. 2012. Azobenzene photomechanics: Prospects and potential applications. *Polymer Bulletin*. 69(8):967-1006. <https://doi.org/10.1007/s00289-012-0792-0>

Lisitsyna ES, Lygo ON, Durandin NA, Dement'eva OV, Rudoi VM, Kuzmin VA. 2012. Superquenching of SYBRGreen dye fluorescence in complex with DNA by gold nanoparticles. *HIGH ENERGY CHEMISTRY*. 46(6):363-367. <https://doi.org/10.1134/S0018143912060057>

Khan MN, Tjong V, Chilkoti A, Zharnikov M. 2012. Fabrication of ssDNA/oligo(ethylene glycol) monolayers and complex nanostructures by an irradiation-promoted exchange reaction. *Angewandte Chemie (International Edition)*. 51(41):10303-10306. <https://doi.org/10.1002/anie.201204245>

Le HH, Hoang XT, Das A, Gohs U, Stoeckelhuber KW, Boldt R, Heinrich G, Adhikari R, Radosch HJ. 2012. Kinetics of filler wetting and dispersion in carbon nanotube/rubber composites. *Carbon*. 50(12):4543-4556. <https://doi.org/10.1016/j.carbon.2012.05.039>

Gao W, Feng Y, Lu J, Khan M, Guo J. 2012. Biomimetic surface modification of polycarbonateurethane film via phosphorylcholine-graft for resisting platelet adhesion. *Macromolecular Research*. 20(10):1063-1069. <https://doi.org/10.1007/s13233-012-0152-9>

Bardhan JP, Jungwirth P, Makowski L. 2012. Affine-response model of molecular solvation of ions: Accurate predictions of asymmetric charging free energies. *Journal of Chemical Physics*. 137(12). <https://doi.org/10.1063/1.4752735>

Kapgate BP, Das C, Das A, Basu D, Reuter U, Heinrich G. 2012. Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends. *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 63(3):501-509. <https://doi.org/10.1007/s10971-012-2812-9>

Pegado L, Marsalek O, Jungwirth P, Wernersson E. 2012. Solvation and ion-pairing properties of the aqueous sulfate anion: Explicit versus effective electronic polarization. *Physical Chemistry Chemical Physics*. 14(29):10248-10257. <https://doi.org/10.1039/c2cp40711f>

Kousoulidou M, Ntziachristos L, Fontaras G, Martini G, Dilara P, Samaras Z. 2012. Impact of biodiesel application at various blending ratios on passenger cars of different fueling technologies. *Fuel*. 98:88-94. <https://doi.org/10.1016/j.fuel.2012.03.038>

Mason PE, Wernersson E, Jungwirth P. 2012. Accurate description of aqueous carbonate ions: An effective polarization model verified by neutron scattering. *Journal of Physical Chemistry Part B*. 116(28):8145-8153. <https://doi.org/10.1021/jp3008267>

Serak SV, Tabiryann NV, Assanto G. 2012. Nematicons in azobenzene liquid crystals. *Molecular Crystals and Liquid Crystals*. 559:202-213. <https://doi.org/10.1080/15421406.2012.658710>

Rembert KB, Paterová J, Heyda J, Hilty C, Jungwirth P, Cremer PS. 2012. Molecular mechanisms of ion-specific effects on proteins. *Journal of the American Chemical Society*. 134(24):10039-10046. <https://doi.org/10.1021/ja301297g>

Priimagi A, Cavallo G, Forni A, Gorynsztejn-Leben M, Kaivola M, Metrangolo P, Milani R, Shishido A, Pilati T, Resnati G, Terraneo G. 2012. Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers. *Advanced Functional Materials*. 22(12):2572-2579. <https://doi.org/10.1002/adfm.201200135>

Vazdar M, Jurkiewicz P, Hof M, Jungwirth P, Cwiklik L. 2012. Behavior of 4-hydroxynonenal in phospholipid membranes. *Journal of Physical Chemistry Part B*. 116(22):6411-6415. <https://doi.org/10.1021/jp3044219>

Ma L, Atta-Fynn R, Ray AK. 2012. Elemental and mixed actinide dioxides: An ab initio study. *Journal of Theoretical and Computational Chemistry*. 11(3):611-629. <https://doi.org/10.1142/S021963361250040X>

Wang DY, Das A, Leuteritz A, Mahaling RN, Jehnichen D, Wagenknecht U, Heinrich G. 2012. Structural characteristics and flammability of fire retarding EPDM/layered double hydroxide (LDH) nanocomposites. *RSC Advances*. 2(9):3927-3933. <https://doi.org/10.1039/c2ra20189e>

Roop S, Das A, Stöckelhuber KW, Reuter U, Heinrich G. 2012. Highly exfoliated natural rubber/Clay composites by "propping-open procedure": The influence of fatty-acid chain length on exfoliation. *Macromolecular Materials and Engineering*. 297(4):369-383. <https://doi.org/10.1002/mame.201100185>

Stradomska A, Kulig W, Slawik M, Petelenz P. 2012. Excited-state polarizability in crystalline sexithiophene: Charge-transfer and vibronic effects. *Chemical Physics Letters*. 529:27-30. <https://doi.org/10.1016/j.cplett.2012.01.038>

Das A, George JJ, Kutlu B, Leuteritz A, Wang DY, Roop S, Jurk R, Rajeshbabu R, Stöckelhuber KW, Galiatsatos V, Heinrich G. 2012. A novel thermotropic elastomer based on highly-filled LDH-SSB composites. *Macromolecular Rapid Communications*. 33(4):337-342. <https://doi.org/10.1002/marc.201100735>

Nandre KP, Salunke JK, Nandre JP, Patil VS, Borse AU, Bhosale SV. 2012. Glycerol mediated synthesis of 5-substituted 1H-tetrazole under catalyst free conditions. *Chinese Chemical Letters*. 23(2):161-164. <https://doi.org/10.1016/j.ccllet.2011.11.019>

Koskela JE, Vapaavuori J, Hautala J, Priimagi A, Faul CFJ, Kaivola M, Ras RHA. 2012. Surface-relief gratings and stable birefringence inscribed using light of broad spectral range in supramolecular polymer-bisazobenzene complexes. *Journal of Physical Chemistry C*. 116(3):2363-2370. <https://doi.org/10.1021/jp210706n>

Marsalek O, Uhlig F, Vandevondele J, Jungwirth P. 2012. Structure, dynamics, and reactivity of hydrated electrons by Ab initio molecular dynamics. *Accounts of Chemical Research*. 45(1):23-32. <https://doi.org/10.1021/ar200062m>

Leuteritz A, Kutlu B, Meinel J, Wang D, Das A, Wagenknecht U, Heinrich G. 2012. Layered Double Hydroxides (LDH): A multifunctional versatile system for nanocomposites. *Molecular Crystals and Liquid Crystals*. 556:107-113. <https://doi.org/10.1080/15421406.2012.635923>

Priimagi A, Shimamura A, Kondo M, Hiraoka T, Kubo S, Mamiya JI, Kinoshita M, Ikeda T, Shishido A. 2012. Location of the Azobenzene moieties within the cross-linked liquid-crystalline polymers can dictate the direction of photoinduced bending. *ACS Macro Letters*. 1(1):96-99. <https://doi.org/10.1021/mz200056w>

Marsalek O, Elles CG, Pieniazek PA, Pluhaov E, Vandevondele J, Bradforth SE, Jungwirth P. 2011. Chasing charge localization and chemical reactivity following photoionization in liquid water. *Journal of Chemical Physics*. 135(22). <https://doi.org/10.1063/1.3664746>

Härkönen HH, Mattsson JM, Määttä JAE, Stenman UH, Koistinen H, Matero S, Windshügel B, Poso A, Lahtela-Kakkonen M. 2011. The Discovery of Compounds That Stimulate the Activity of Kallikrein-Related Peptidase3 (KLK3). *CHEMMEDCHEM*. 6(12):2170-2178. <https://doi.org/10.1002/cmdc.201100349>

Manna M, Mukhopadhyay C. 2011. Cholesterol driven alteration of the conformation and dynamics of phospholamban in model membranes. *Physical Chemistry Chemical Physics*. 13(45):20188-20198. <https://doi.org/10.1039/c1cp21793c>

Subramaniam K, Das A, Steinhauser D, Klüppel M, Heinrich G. 2011. Effect of ionic liquid on dielectric, mechanical and dynamic mechanical properties of multi-walled carbon nanotubes/polychloroprene rubber composites. *European Polymer Journal*. 47(12):2234-2243. <https://doi.org/10.1016/j.eurpolymj.2011.09.021>

Gladich I, Pfalzgraff W, Maršálek O, Jungwirth P, Roeselová M, Neshyba S. 2011. Arrhenius analysis of anisotropic surface self-diffusion on the prismatic facet of ice. *Physical Chemistry Chemical Physics*. 13(44):19960-19969. <https://doi.org/10.1039/c1cp22238d>