

Lubricated icephobic coatings prepared by flame spraying with hybrid feedstock injection

Donadei, V., Koivuluoto, H., Sarlin, E. & Vuoristo, P., 15 Dec 2020, In : Surface and Coatings Technology. 403, 13 p., 126396.

Research output: Contribution to journal > Article > Scientific > peer-review

The effect of substrate pre-treatment on durability of rubber-stainless steel adhesion

Sarlin, E., Honkanen, M., Lindgren, M., Laihonon, P., Juutilainen, M., Vippola, M. & Vuorinen, J., 1 Dec 2020, In : Surfaces and Interfaces. 21, 9 p., 100646.

Research output: Contribution to journal > Article > Scientific > peer-review

On the alignment of ZnO nanowires by Langmuir – Blodgett technique for sensing application

Baratto, C., Golovanova, V., Faglia, G., Hakola, H., Niemi, T., Tkachenko, N., Nazarchurk, B. & Golovanov, V., 30 Oct 2020, In : Applied Surface Science. 528, 146959.

Research output: Contribution to journal > Article > Scientific > peer-review

Fusionsense: Emotion classification using feature fusion of multimodal data and deep learning in a brain-inspired spiking neural network

Tan, C., Ceballos, G., Kasabov, N. & Subramaniam, N. P., 17 Sep 2020, In : Sensors (Switzerland). 20, 18, 27 p., 5328.

Research output: Contribution to journal > Article > Scientific > peer-review

Tail-Oxidized Cholesterol Enhances Membrane Permeability for Small Solutes

Olżyńska, A., Kulig, W., Mikkolainen, H., Czerniak, T., Jurkiewicz, P., Cwiklik, L., Rog, T., Hof, M., Jungwirth, P. & Vattulainen, I., 8 Sep 2020, In : Langmuir. 36, 35, p. 10438-10447 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Formation of corrosion products on zinc in wet supercritical and subcritical CO₂: In-situ spectroscopic study

Kaleva, A., Tassaing, T., Saarimaa, V., Le Bourdon, G., Väisänen, P., Markkulä, A. & Levänen, E., 1 Sep 2020, In : Corrosion Science. 174, 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The role of symmetry in the aesthetics of residential building façades using cognitive science methods

Azemati, H., Jam, F., Ghorbani, M., Dehmer, M., Ebrahimpour, R., Ghanbaran, A. & Emmert-Streib, F., 1 Sep 2020, In : Symmetry. 12, 9, 15 p., 1438.

Research output: Contribution to journal > Article > Scientific > peer-review

ClothFace: A Batteryless RFID-Based Textile Platform for Handwriting Recognition

He, H., Chen, X., Mehmood, A., Raivio, L., Huttunen, H., Raunonen, P. & Virkki, J., 28 Aug 2020, In : Sensors (Basel, Switzerland). 20, 17, 12 p., 4878.

Research output: Contribution to journal > Article > Scientific > peer-review

The C-I⁻⋯O-N⁺ Halogen Bonds with Tetraiodoethylene and Aromatic N-Oxides

Truong, K. N., Rautiainen, J. M., Rissanen, K. & Puttreddy, R., 5 Aug 2020, In : Crystal Growth and Design. 20, 8, p. 5330-5337 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Design principles for non-reciprocal photomechanical actuation

Lahikainen, M., Zeng, H. & Priimagi, A., 7 Jul 2020, In : Soft Matter. 16, 25, p. 5951-5958 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Nucleation and growth behavior of Er³⁺ doped oxyfluorophosphate glasses

Ojha, N., Szczodra, A., Boetti, N. G., Massera, J. & Petit, L., 7 Jul 2020, In : RSC Advances. 10, 43, p. 25703-25716 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Selective hydrogen production at Pt(111) investigated by Quantum Monte Carlo methods for metal catalysis

Sharma, R. O., Rantala, T. T. & Hoggan, P. E., 5 Jun 2020, In : International Journal of Quantum Chemistry. 120, 11, e26198.

Research output: Contribution to journal › Article › Scientific › peer-review

Additive manufacturing of monolithic supercapacitors with biopolymer separator

Arvani, M., Keskinen, J., Railanmaa, A., Siljander, S., Björkqvist, T., Tuukkanen, S. & Lupo, D., 1 Jun 2020, In : Journal of Applied Electrochemistry. 50, 6, p. 689-697 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Molecular Docking Studies of Royleanone Diterpenoids from *Plectranthus* spp. as P-Glycoprotein Inhibitors

Isca, V. M. S., Ferreira, R. J., Garcia, C., Monteiro, C. M., Dinic, J., Holmstedt, S., André, V., Pesic, M., Dos Santos, D. J. V. A., Candeias, N. R., Afonso, C. A. M. & Rijo, P., 14 May 2020, In : ACS MEDICINAL CHEMISTRY LETTERS. 11, 5, p. 839-845 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Physical Characteristics of Particle Emissions from a Medium Speed Ship Engine Fueled with Natural Gas and Low-Sulfur Liquid Fuels

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., 5 May 2020, In : Environmental Science and Technology. 54, 9, p. 5376-5384 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Rotational Diffusion of Membrane Proteins in Crowded Membranes

Javanainen, M., Ollila, O. H. S. & Martinez-Seara, H., 16 Apr 2020, In : Journal of Physical Chemistry B. 124, 15, p. 2994-3001 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The effect of start-up on energy recovery and compositional changes in brewery wastewater in bioelectrochemical systems

Haavisto, J. M., Kokko, M. E., Lakaniemi, A. M., Sulonen, M. L. K. & Puhakka, J. A., 1 Apr 2020, In : BIOELECTROCHEMISTRY. 132, 8 p., 107402.

Research output: Contribution to journal › Article › Scientific › peer-review

Host-Guest Interactions of Sodiumsulfonatomethyleneresorcinarene and Quaternary Ammonium Halides: An Experimental-Computational Analysis of the Guest Inclusion Properties

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Research output: Contribution to journal › Article › Scientific › peer-review

Photostable orange-red fluorescent unsymmetrical diketopyrrolopyrrole-BF₂ hybrids

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Research output: Contribution to journal › Article › Scientific › peer-review

Linking volatile and non-volatile compounds to sensory profiles and consumer liking of wild edible Nordic mushrooms

Aisala, H., Manninen, H., Laaksonen, T., Linderborg, K. M., Myoda, T., Hopia, A. & Sandell, M., 30 Jan 2020, In : Food Chemistry. 304, 125403.

Research output: Contribution to journal › Article › Scientific › peer-review

Sequential Collinear Photofragmentation and Atomic Absorption Spectroscopy for Online Laser Monitoring of Triatomic Metal Species

Viljanen, J., Kalmankoski, K., Contreras, V., Sarin, J. K., Sorvajärvi, T., Kinnunen, H., Enestam, S. & Toivonen, J., 18 Jan 2020, In : Sensors (Basel, Switzerland). 20, 2, 14 p., 533.

Research output: Contribution to journal › Article › Scientific › peer-review

Syndecan-4 tunes cell mechanics by activating the kindlin-integrin-RhoA pathway

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Research output: Contribution to journal › Article › Scientific › peer-review

Monitoring Charge Carrier Diffusion across a Perovskite Film with Transient Absorption Spectroscopy

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Research output: Contribution to journal > Article > Scientific > peer-review

Effect of tungsten and selenium on C₁ gas bioconversion by an enriched anaerobic sludge and microbial community analysis

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Research output: Contribution to journal > Article > Scientific > peer-review

Compounding and characterization of recycled multilayer plastic films

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Taste compound – Nanocellulose interaction assessment by fluorescence indicator displacement assay

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Research output: Contribution to journal > Article > Scientific > peer-review

Hematite Surface Modification toward Efficient Sunlight-Driven Water Splitting Activity: The Role of Gold Nanoparticle Addition

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Research output: Contribution to journal > Article > Scientific > peer-review

Influence of powder properties on residual stresses formed in high-pressure liquid fuel HVOF sprayed WC-CoCr coatings

Varis, T., Suhonen, T., Jokipii, M. & Vuoristo, P., 2020, In : Surface and Coatings Technology. 388, 9 p., 125604.

Research output: Contribution to journal > Article > Scientific > peer-review

Non-radiative decay and fragmentation in water molecules after 1 a 1-1 4 a 1 excitation and core ionization studied by electron-energy-resolved electron-ion coincidence spectroscopy

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Research output: Contribution to journal > Article > Scientific > peer-review

Comparison and impact of different fiber debond techniques on fiber reinforced flexible composites

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Research output: Contribution to journal > Article > Scientific > peer-review

Experimental study on axially loaded square hollow section T-joints under fire conditions

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Research output: Contribution to journal > Article > Scientific > peer-review

High-resolution analysis of the ν₃ band of radiocarbon methane ¹⁴CH₄

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Research output: Contribution to journal > Article > Scientific > peer-review

Ultrafast Photochemistry of the [Cr(NCS)₆]³⁻ Complex in Dimethyl Sulfoxide and Dimethylformamide upon Excitation into Ligand-Field Electronic State

Khvorost, T. A., Beliaev, L. Y., Potalueva, E., Laptchenkova, A. V., Selyutin, A. A., Bogachev, N. A., Skripkin, M. Y., Ryazantsev, M. N., Tkachenko, N. & Mereshchenko, A. S., 2020, In : Journal of Physical Chemistry B. 124, 18, p. 3724-3733 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Efficient Conversion of Light to Chemical Energy: Directional, Chiral Photoswitches with Very High Quantum Yields

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Modelling of a pressure swing adsorption unit by deep learning and artificial Intelligence tools

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Fast Switching of Bright Whiteness in Channeled Hydrogel Networks

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A concise synthesis of carbasugars isolated from *Streptomyces lincolnensis*

Holmstedt, S. & Candeias, N. R., 2020, In : *Tetrahedron*. 6 p., 131346.

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Bringing a Molecular Plus One: Synergistic Binding Creates Guest-Mediated Three-Component Complexes

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Research output: Contribution to journal › Article › Scientific › peer-review

A bifacial colour-tunable system via combination of a cholesteric liquid crystal network and hydrogel

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Modification of Surface States of Hematite-Based Photoanodes by Submonolayer of TiO₂ for Enhanced Solar Water Splitting

Palmolahti, L., Ali-Löytty, H., Khan, R., Saari, J., Tkachenko, N. V. & Valden, M., 2020, In : *Journal of Physical Chemistry C*. 124, 24, p. 13094-13101 8 p.

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Recovery characteristics of different tube materials in relation to combustion products

Karjalainen, M., Kontunen, A., Mäkelä, M., Anttalainen, O., Vehkaoja, A., Oksala, N. & Roine, A., 2020, In : *International Journal for Ion Mobility Spectrometry*. 8 p.

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Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds

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Kinetics and modelling of thiosulphate biotransformations by haloalkaliphilic *Thioalkalivibrio versutus*

Hajdu-Rahkama, R., Özkaya, B., Lakaniemi, A. M. & Puhakka, J. A., 2020, In : *Chemical Engineering Journal*. 401, 9 p., 126047.

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Energy dissipation in natural rubber latex films: The effect of stabilizers, leaching and acetone-treatment

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Conductivity control via minimally invasive anti-Frenkel defects in a functional oxide

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A modular brain-on-a-chip for modelling epileptic seizures with functionally connected human neuronal networks

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ILC1 drive intestinal epithelial and matrix remodelling

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Environmental monitoring with distributed mesh networks: An overview and practical implementation perspective for urban scenario

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Programmable responsive hydrogels inspired by classical conditioning algorithm

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Key drivers of cloud response to surface-active organics

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Research output: Contribution to journal › Article › Scientific › peer-review

The role of highly oxygenated organic molecules in the Boreal aerosol-cloud-climate system

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Spectral object recognition in hyperspectral holography with complex-domain denoising

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Nanocluster Aerosol Emissions of a 3D Printer

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Research output: Contribution to journal › Article › Scientific › peer-review

Molecular Composition and Volatility of Nucleated Particles from α -Pinene Oxidation between -50 °c and $+25$ °c

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Statistical evaluation of barkhausen noise testing (BNT) for ground samples

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Research output: Contribution to journal › Article › Scientific › peer-review

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

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Effects of anode materials on electricity production from xylose and treatability of TMP wastewater in an up-flow microbial fuel cell

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Multiresonant High-Q Plasmonic Metasurfaces

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Strategies To Diminish the Emissions of Particles and Secondary Aerosol Formation from Diesel Engines

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Porous polybutylene succinate films enabling adhesion of human embryonic stem cell-derived retinal pigment epithelial cells (hESC-RPE)

Calejo, M. T., Haapala, A., Skottman, H. & Kellomäki, M., 1 Sep 2019, In : European Polymer Journal. 118, p. 78-87 10 p.

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Behavior of the DPH fluorescence probe in membranes perturbed by drugs

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Influence of ions to modulate hydrazone and oxime reaction kinetics to obtain dynamically cross-linked hyaluronic acid hydrogels

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Characterizing the micro-impact fatigue behavior of APS and HVOF-sprayed ceramic coatings

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Chlorine induced high-temperature corrosion mechanisms in HVOF and HVOF sprayed Cr₃C₂-based hardmetal coatings

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Bayesian inversion of a forest reflectance model using Sentinel-2 and Landsat 8 satellite images

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Photochemistry of dithiophosphate Ni(S₂P(i-Bu)₂)₂ complex in CCl₄. Transient species and TD-DFT calculations

Solovyev, A. I., Mikheyli, A. V., Plyusnin, V. F., Shubin, A. A., Grivin, V. P., Larionov, S. V., Tkachenko, N. V. & Lemmetyinen, H., 1 Aug 2019, In : Journal of Photochemistry and Photobiology A: Chemistry. 381, 111857.

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Erosion wear performance of WC-10Co4Cr and Cr₃C₂-25NiCr coatings sprayed with high-velocity thermal spray processes

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Observation of Coexistence of Yu-Shiba-Rusinov States and Spin-Flip Excitations

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Research output: Contribution to journal › Article › Scientific › peer-review

FCC-hh: The Hadron Collider: Future Circular Collider Conceptual Design Report Volume 3

Abada, A., Abbrescia, M., AbdusSalam, S. S., Abdyukhanov, I., Abelleira Fernandez, J., Abramov, A., Aburaia, M., Acar, A. O., Adzic, P. R., Agrawal, P., Aguilar-Saavedra, J. A., Aguilera-Verdugo, J. J., Aiba, M., Aichinger, I., Aielli, G., Akay, A., Akhundov, A., Aksakal, H., Albacete, J. L., Albergo, S., Alekou, A., Aleksa, M., Aleksan, R., Alemany Fernandez, R. M., Alexahin, Y., Alía, R. G., Alioli, S., Alipour Tehrani, N., Allanach, B. C., Allport, P. P., Altinli, M., Altmannshofer, W., Ambrosio, G., Amorim, D., Amstutz, O., Anderlini, L., Andreazza, A., Andreini, M., Andriatis, A., Andris, C., Andronic, A., Angelucci, M., Antinori, F., Antipov, S. A., Antonelli, M., Antonello, M., Lehtinen, T., Penttinen, J. P., Salmi, T. & Stenvall, A., 1 Jul 2019, In : European Physical Journal: Special Topics. 228, 4, p. 755-1107 353 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Pyrolytic behavior of lignocellulosic-based polysaccharides

Ghalibaf, M., Doddapaneni, T. R. K. C. & Alén, R., Jul 2019, In : Journal of Thermal Analysis and Calorimetry. 137, 1, p. 121-131

Research output: Contribution to journal › Article › Scientific › peer-review

Crystalline Wax Esters Regulate the Evaporation Resistance of Tear Film Lipid Layers Associated with Dry Eye Syndrome

Paananen, R. O., Javanainen, M., Holopainen, J. M. & Vattulainen, I., 25 Jun 2019, In : Journal of Physical Chemistry Letters. 10, 14, p. 3893-3898 6 p.

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Water-Responsive and Mechanically Adaptive Natural Rubber Composites by in Situ Modification of Mineral Filler Structures

Banerjee, S. S., Hait, S., Natarajan, T. S., Wießner, S., Stöckelhuber, K. W., Jehnichen, D., Janke, A., Fischer, D., Heinrich, G., Busfield, J. J. C. & Das, A., 20 Jun 2019, In : Journal of Physical Chemistry B. 123, 24, p. 5168-5175 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Epitaxial phases of high Bi content GaSbBi alloys

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Research output: Contribution to journal › Article › Scientific › peer-review

Tailoring Second-Harmonic Emission from (111)-GaAs Nanoantennas

Sautter, J. D., Xu, L., Miroshnichenko, A. E., Lysevych, M., Volkovskaya, I., Smirnova, D. A., Camacho-Morales, R., Zangeneh Kamali, K., Karouta, F., Vora, K., Tan, H. H., Kauranen, M., Staude, I., Jagadish, C., Neshev, D. N. & Rahmani, M., 12 Jun 2019, In : Nano Letters. 19, 6, p. 3905-3911 7 p.

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The Role of Temperature and Lipid Charge on Intake/Uptake of Cationic Gold Nanoparticles into Lipid Bilayers

Lolicato, F., Joly, L., Martinez-Seara, H., Fragneto, G., Scoppola, E., Baldelli Bombelli, F., Vattulainen, I., Akola, J. & Maccarini, M., 7 Jun 2019, In : Small. 15, 23, 1805046.

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Analytical Expressions for Spring Constants of Capillary Bridges and Snap-in Forces of Hydrophobic Surfaces

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Correlation of Surface Morphology and Interfacial Adhesive Behavior between Cellulose Surfaces: Quantitative Measurements in Peak-Force Mode with the Colloidal Probe Technique

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Methods for simultaneous robot-world-hand-eye calibration: A comparative study

Ali, I., Suominen, O., Gotchev, A. & Morales, E. R., 2 Jun 2019, In : Sensors (Switzerland). 19, 12, 2837.

Research output: Contribution to journal › Article › Scientific › peer-review

Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of H₂O₂ Using Low-Intensity Direct Current

Kekonen, A., Bergelin, M., Johansson, M., Kumar Joon, N., Bobacka, J. & Viik, J., 31 May 2019, In : Sensors. 19, 11

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Reaction between Peroxy and Alkoxy Radicals Can Form Stable Adducts

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Research output: Contribution to journal › Article › Scientific › peer-review

Energy-dependent diffusion in a soft periodic Lorentz gas

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Moiré superlattices and 2D electronic properties of graphite/MoS₂ heterostructures

Trainer, D. J., Putilov, A. V., Wang, B., Lane, C., Saari, T., Chang, T. R., Jeng, H. T., Lin, H., Xi, X., Nieminen, J., Bansil, A. & Iavarone, M., May 2019, In : Journal of Physics and Chemistry of Solids. 128, p. 325-330

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Mass balance control of crushing circuits

Itävuo, P., Hulthén, E., Yahyaei, M. & Viikko, M., May 2019, In : Minerals Engineering. 135, p. 37-47 11 p.

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Complex Behavior of Phosphatidylcholine-Phosphatidic Acid Bilayers and Monolayers: Effect of Acyl Chain Unsaturation

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Analysis of GaAsBi growth regimes in high resolution with respect to As/Ga ratio using stationary MBE growth

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Research output: Contribution to journal › Article › Scientific › peer-review

Hydrolysis and drug release from poly(ethylene glycol)-modified lactone polymers with open porosity

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Positioning information privacy in intelligent transportation systems: An overview and future perspective

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Research output: Contribution to journal > Article > Scientific > peer-review

The Devil Is in the Details: What Do We Really Track in Single-Particle Tracking Experiments of Diffusion in Biological Membranes?

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Kinetics and thermochemistry of the reaction of 3-methylpropargyl radical with molecular oxygen

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A Pentacene-based Nanotube Displaying Enriched Electrochemical and Photochemical Activities

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Research output: Contribution to journal > Article > Scientific > peer-review

Charge carrier dynamics in tantalum oxide overlayers and tantalum doped hematite photoanodes

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Research output: Contribution to journal > Article > Scientific > peer-review

O₂-requiring molecular reporters of gene expression for anaerobic microorganisms

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An automated algorithm for reliable equation of state fitting of magnetic systems

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Tuning of nonlinear absorption in highly luminescent CdSe based quantum dots with core-shell and core/multi-shell architectures

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Research output: Contribution to journal > Article > Scientific > peer-review

Multiphoton Excitation of CsPbBr₃ Perovskite Quantum Dots (PQDs): How Many Electrons Can One PQD Donate to Multiple Molecular Acceptors?

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Spodumene tailings for porcelain and structural materials: Effect of temperature (1050–1200°C) on the sintering and properties

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Possible strategy to use differential mobility spectrometry in real time applications

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Research output: Contribution to journal > Article > Scientific > peer-review

Synthesis of 6,12-disubstituted methanodibenzo[b,f][1,5]dioxocins: Pyrrolidine catalyzed self-condensation of 2'-Hydroxyacetophenones

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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

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Exclusive occurrence of photoinduced energy transfer and switching of its direction by rectangular π -extension of nanographenes

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Research output: Contribution to journal > Article > Scientific > peer-review

The maximum Hosoya index of unicyclic graphs with diameter at most four

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The Hosoya entropy of graphs revisited

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Temperature scanning stress relaxation behavior of water responsive and mechanically adaptive elastomer nanocomposites

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Research output: Contribution to journal > Article > Scientific > peer-review

Large-scale efficient water harvesting using bioinspired micro-patterned copper oxide nanoneedle surfaces and guided droplet transport

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Research output: Contribution to journal > Article > Scientific > peer-review

Synergistic Computational-Experimental Discovery of Highly Selective PtCu Nanocluster Catalysts for Acetylene Semihydrogenation

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Research output: Contribution to journal › Article › Scientific › peer-review

How well can we predict cluster fragmentation inside a mass spectrometer?

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Reversible photodoping of TiO₂ nanoparticles

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Research output: Contribution to journal › Article › Scientific › peer-review

Less Is More: Enhancement of Second-Harmonic Generation from Metasurfaces by Reduced Nanoparticle Density

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Machine learning plastic deformation of crystals

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Bi-directional cell-pericellular matrix interactions direct stem cell fate

Ferreira, S. A., Motwani, M. S., Faull, P. A., Seymour, A. J., Yu, T. T. L., Enayati, M., Taheem, D. K., Salzlechner, C., Haghghi, T., Kania, E. M., Oommen, O. P., Ahmed, T., Loaiza, S., Parzych, K., Dazzi, F., Varghese, O. P., Festy, F., Grigoriadis, A. E., Auner, H. W., Snijders, A. P., Bozec, L. & Gentleman, E., Dec 2018, In : *Nature Communications*. 9, 1, 12 p., 4049.

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Aminobenzylated 4-Nitrophenols as Antibacterial Agents Obtained from 5-Nitrosalicylaldehyde through a Pétasis Borono-Mannich Reaction

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High Nitrogen Removal in a Constructed Wetland Receiving Treated Wastewater in a Cold Climate

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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

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M2M Communication Assessment in Energy-Harvesting and Wake-Up Radio Assisted Scenarios Using Practical Components

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Molecular-Scale Ligand Effects in Small Gold-Thiolate Nanoclusters

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Biological treatment of selenium-laden wastewater containing nitrate and sulfate in an upflow anaerobic sludge bed reactor at pH 5.0

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Tribocorrosion behaviour of aluminium bronze in 3.5 wt.% NaCl solution

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Computation of Dynamic Polarizabilities and van der Waals Coefficients from Path-Integral Monte Carlo

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Quantification of bio-anode capacitance in bioelectrochemical systems using Electrochemical Impedance Spectroscopy

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Mechanical, thermal, and burning properties of viscose fabric composites: Influence of epoxy resin modification

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A compact olfactometer for IMS measurements and testing human perception

Nieminen, V., Karjalainen, M., Salminen, K., Rantala, J., Kontunen, A., Isokoski, P., Müller, P., Kallio, P., Surakka, V. & Leikkala, J., Sep 2018, In : *International Journal for Ion Mobility Spectrometry*. 21, 3, p. 71-80 10 p.

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Effects of pyrolysis temperature on the hydrologically relevant porosity of willow biochar

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Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids

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Selenate removal in biofilm systems: Effect of nitrate and sulfate on selenium removal efficiency, biofilm structure and microbial community

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Design aspects of all atomic layer deposited TiO₂-Fe₂O₃ scaffold-absorber photoanodes for water splitting

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High Bending-Mode Sensitivity of Printed Piezoelectric Poly(vinylidene fluoride- co-trifluoroethylene) Sensors

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Pectin and Mucin Enhance the Bioadhesion of Drug Loaded Nanofibrillated Cellulose Films

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Effect of surfactant type and sonication energy on the electrical conductivity properties of nanocellulose-CNT nanocomposite films

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Research output: Contribution to journal › Article › Scientific › peer-review

Multifunctional nitrogen sulfur co-doped reduced graphene oxide – Ag nano hybrids (sphere, cube and wire) for nonlinear optical and SERS applications

Nair, A. K., Bhavitha, K. B., Perumbilavil, S., Sankar, P., Rouxel, D., Kala, M. S., Thomas, S. & Kalarikkal, N., 1 Jun 2018, In : Carbon. 132, p. 380-393 14 p.

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Photo-antimicrobial efficacy of zinc complexes of porphyrin and phthalocyanine activated by inexpensive consumer LED lamp

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Acquiring respiration rate from photoplethysmographic signal by recursive bayesian tracking of intrinsic modes in time-frequency spectra

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Research output: Contribution to journal › Article › Scientific › peer-review

Evaluation of dry electrodes in canine heart rate monitoring

Virtanen, J., Somppi, S., Törnqvist, H., Jeyhani, V., Fiedler, P., Gizatdinova, Y., Majaranta, P., Väättäjä, H., Cardó, A. V., Leikkala, J., Tuukkanen, S., Surakka, V., Vainio, O. & Vehkaoja, A., 1 Jun 2018, In : Sensors. 18, 6, 1757.

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the TiO₂-Phthalocyanine Interface

Virkki, K., Tervola, E., Medel, M., Torres, T. & Tkachenko, N. V., 31 May 2018, In : ACS Omega. 3, 5, p. 4947-4958 12 p.
Research output: Contribution to journal > Article > Scientific > peer-review

A Ceramide-Regulated Element in the Late Endosomal Protein LAPT4B Controls Amino Acid Transporter Interaction
Zhou, K., Dichlberger, A., Martinez-Seara, H., Nyholm, T. K. M., Li, S., Kim, Y. A., Vattulainen, I., Ikonen, E. & Blom, T., 23 May 2018, In : ACS Central Science. 4, 5, p. 548-558 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Wet etching of dilute nitride GaInNAs, GaInNAsSb, and GaNAsSb alloys lattice-matched to GaAs

Raappana, M., Polojärvi, V., Aho, A., Mäkelä, J., Aho, T., Tukiainen, A., Laukkanen, P. & Guina, M., 15 May 2018, In : Corrosion Science. 136, p. 268-274 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Free amino acids and 5'-nucleotides in Finnish forest mushrooms

Manninen, H., Rotola-Pukkila, M., Aisala, H., Hopia, A. & Laaksonen, T., May 2018, In : Food Chemistry. 247, p. 23-28 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Characteristics of nFOG, an aerosol-based wet thin film coating technique

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, J. M., May 2018, In : Journal of Coatings Technology Research. 15, 3, p. 623-632 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Accurate Binding of Sodium and Calcium to a POPC Bilayer by Effective Inclusion of Electronic Polarization

Melcr, J., Martinez-Seara, H., Nencini, R., Kolafa, J., Jungwirth, P. & Ollila, O. H. S., 26 Apr 2018, In : Journal of Physical Chemistry B. 122, 16, p. 4546-4557 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Composite Hydrogels Using Bioinspired Approach with in Situ Fast Gelation and Self-Healing Ability as Future Injectable Biomaterial

Khan, M., Koivisto, J., Hukka, T., Hokka, M. & Kellomäki, M., 11 Apr 2018, In : ACS Applied Materials & Interfaces. 10, 14, p. 11950-11960

Research output: Contribution to journal > Article > Scientific > peer-review

Membrane bound COMT isoform is an interfacial enzyme: General mechanism and new drug design paradigm

Magarkar, A., Parkkila, P., Viitala, T., Lajunen, T., Mobarak, E., Licari, G., Cramariuc, O., Vauthey, E., Róg, T. & Bunker, A., 11 Apr 2018, In : Chemical Communications. 54, 28, p. 3440-3443 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Properties of HVOF-sprayed Stellite-6 coatings

Sassatelli, P., Bolelli, G., Lassinantti Gualtieri, M., Heinonen, E., Honkanen, M., Lusvarghi, L., Manfredini, T., Rigon, R. & Vippola, M., 25 Mar 2018, In : Surface and Coatings Technology. 338, p. 45-62 18 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing

Poutanen, M., Ahmed, Z., Rautkari, L., Ikkala, O. & Priimägi, A., 20 Mar 2018, In : ACS Macro Letters. 7, 3, p. 381-386 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Improving the high temperature abrasion resistance of thermally sprayed Cr₃C₂-NiCr coatings by WC addition

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Research output: Contribution to journal > Article > Scientific > peer-review

Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells

Karvinen, J., Joki, T., Ylä-Outinen, L., Koivisto, J. T., Narkilahti, S. & Kellomäki, M., 1 Mar 2018, In : *Reactive and Functional Polymers*. 124, p. 29-39 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Improved Stability of Atomic Layer Deposited Amorphous TiO₂ Photoelectrode Coatings by Thermally Induced Oxygen Defects

Hannula, M., Ali-Löyty, H., Lahtonen, K., Sarlin, E., Saari, J. & Valden, M., 27 Feb 2018, In : *Chemistry of Materials*. 30, 4, p. 1199-1208 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

An activity recognition framework deploying the random forest classifier and a single optical heart rate monitoring and triaxial accelerometer wrist-band

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Research output: Contribution to journal > Article > Scientific > peer-review

UV-Blocking Synthetic Biopolymer from Biomass-Based Bifuran Diester and Ethylene Glycol

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Research output: Contribution to journal > Article > Scientific > peer-review

Pot-economy autooxidative condensation of 2-Aryl-2-lithio-1,3-dithianes

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Research output: Contribution to journal > Article > Scientific > peer-review

Entrapped Styrene Butadiene Polymer Chains by Sol-Gel-Derived Silica Nanoparticles with Hierarchical Raspberry Structures

Vaikuntam, S. R., Stöckelhuber, K. W., Subramani Bhagavatheswaran, E., Wießner, S., Scheler, U., Saalwächter, K., Formanek, P., Heinrich, G. & Das, A., 15 Feb 2018, In : *Journal of Physical Chemistry B*. 122, 6, p. 2010-2022 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

MetrIntSimil-an accurate and robust metric for comparison of similarity in intelligence of any number of cooperative multiagent systems

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Research output: Contribution to journal > Article > Scientific > peer-review

Controlled Growth of Supported ZnO Inverted Nanopyramids with Downward Pointing Tips

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Research output: Contribution to journal > Article > Scientific > peer-review

Temperature scanning stress relaxation of an autonomous self-healing elastomer containing non-covalent reversible network junctions

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Research output: Contribution to journal > Article > Scientific > peer-review

Concentration-dependent photophysical switching in mixed self-assembled monolayers of pentacene and perylene diimide on gold nanoclusters

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Research output: Contribution to journal > Article > Scientific > peer-review

Upconversion from fluorophosphate glasses prepared with NaYF₄:Er³⁺, Yb³⁺ nanocrystals

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Research output: Contribution to journal › Article › Scientific › peer-review

Ortho-Fluorination of azophenols increases the mesophase stability of photoresponsive hydrogen-bonded liquid crystals

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Improved electromechanical response in acrylic rubber by different carbon-based fillers

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Modification of epoxy resin by silane-coupling agent to improve tensile properties of viscose fabric composites

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Regeneration of sulfur-poisoned Pd-based catalyst for natural gas oxidation

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Composition and role of the attached and planktonic microbial communities in mesophilic and thermophilic xylose-fed microbial fuel cells

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Research output: Contribution to journal › Article › Scientific › peer-review

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Convenient extraction method for quantification of thin zinc patina layers

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Gloriosa superba Mediated Synthesis of Platinum and Palladium Nanoparticles for Induction of Apoptosis in Breast Cancer

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A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances

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Detection and characterization at nM concentration of oligomers formed by hIAPP, A β (1-40) and their equimolar mixture using SERS and MD simulations

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Efficient photon upconversion at remarkably low annihilator concentrations in a liquid polymer matrix: when less is more

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On the molecular optical nonlinearity of halogen-bond-forming azobenzenes

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Supercritical carbon dioxide treatment of hot dip galvanized steel as a surface treatment before coating

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Time-Resolved Fluorescence Spectroscopy Reveals Fine Structure and Dynamics of Poly(L-lysine) and Polyethylenimine Based DNA Polyplexes

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Oxygen and water vapor transmission rates of starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper

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Carbazole-based small molecule electron donors: Syntheses, characterization, and material properties

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DoGlycans-Tools for Preparing Carbohydrate Structures for Atomistic Simulations of Glycoproteins, Glycolipids, and Carbohydrate Polymers for GROMACS

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Exhaust emissions of non-road mobile machine: Real-world and laboratory studies with diesel and HVO fuels

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Electropolymerized polyazulene as active material in flexible supercapacitors

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Long-Range Observation of Exciplex Formation and Decay Mediated by One-Dimensional Bridges

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The effects of calcium and potassium on CO₂ gasification of birch wood in a fluidized bed

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Photoinduced Electron Injection from Zinc Phthalocyanines into Zinc Oxide Nanorods: Aggregation Effects

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Elucidation of Compression-Induced Surface Crystallization in Amorphous Tablets Using Sum Frequency Generation (SFG) Microscopy

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Hexaphyrin as a Potential Theranostic Dye for Photothermal Therapy and ¹⁹F Magnetic Resonance Imaging

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Calcium Directly Regulates Phosphatidylinositol 4,5-Bisphosphate Headgroup Conformation and Recognition

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Hierarchical Self-Assembly of Halogen-Bonded Block Copolymer Complexes into Upright Cylindrical Domains

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Polarization resolved photoluminescence in GaAs_{1-x}Bi_x/GaAs quantum wells

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Improved corrosion properties of Hot Dip Galvanized Steel by nanomolecular silane layers as hybrid interface between zinc and top coatings

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High-resolution coded-aperture design for compressive X-ray tomography using low resolution detectors

Mojica, E., Pertuz, S. & Arguello, H., 2017, In : Optics Communications. 404, p. 103-109
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Crystallization and sintering of borosilicate bioactive glasses for application in tissue engineering

Fabert, M., Ojha, N., Erasmus, E., Hannula, M., Hokka, M., Hyttinen, J., Rocherullé, J., Sigalas, I. & Massera, J., 2017, In : Journal of Materials Chemistry B. 5, 23, p. 4514-4525 12 p.
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Two cations, two mechanisms: Interactions of sodium and calcium with zwitterionic lipid membranes

Javanainen, M., Melcrová, A., Magarkar, A., Jurkiewicz, P., Hof, M., Jungwirth, P. & Martinez-Seara, H., 2017, In : Chemical Communications. 53, 39, p. 5380-5383 4 p.
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Supramolecular control of liquid crystals by doping with halogen-bonding dyes

Vapaavuori, J., Siiskonen, A., Dichiarante, V., Forni, A., Saccone, M., Pilati, T., Pellerin, C., Shishido, A., Metrangolo, P. & Priimägi, A., 2017, In : RSC Advances. 7, 64, p. 40237-40242 6 p.
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Photoresponsive ionic liquid crystals assembled: Via halogen bond: En route towards light-controllable ion transporters

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Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems

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Design of a 25 MWe Solar Thermal Power Plant in Iran with Using Parabolic Trough Collectors and a Two-Tank Molten Salt Storage System

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Particle emissions characterization from a medium-speed marine diesel engine with two fuels at different sampling conditions

Ntziachristos, L., Saukko, E., Lehtoranta, K., Rönkkö, T., Timonen, H., Simonen, P., Karjalainen, P. & Keskinen, J., 15 Dec 2016, In : Fuel. 186, p. 456-465 10 p.
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Optimization of HVOF Cr₃C₂-NiCr coating for increased fatigue performance

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Collective excitations and viscosity in liquid Bi

Ropo, M., Akola, J. & Jones, R. O., 14 Nov 2016, In : Journal of Chemical Physics. 145, 18, 184502.
Research output: Contribution to journal > Article > Scientific > peer-review

Improvement of actuation performance of dielectric elastomers by barium titanate and carbon black fillers

Poikelispää, M., Shakun, A., Das, A. & Vuorinen, J., 10 Nov 2016, In : Journal of Applied Polymer Science. 133, 42, 44116.
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London Hybrid Exposure Model: Improving Human Exposure Estimates to NO₂ and PM_{2.5} in an Urban Setting

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Grain orientation dependent Nb-Ti microalloying mediated surface segregation on ferritic stainless steel

Ali-Löytty, H., Hannula, M., Honkanen, M., Östman, K., Lahtonen, K. & Valden, M., Nov 2016, In : Corrosion Science. 112, p. 204-213
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UPS and DFT investigation of the electronic structure of gas-phase trimesic acid

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Increased survival rate by local release of diclofenac in a murine model of recurrent oral carcinoma

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Elimination of arsenic-containing emissions from gasification of chromated copper arsenate wood

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Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers

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Detergent impurity effect on recycled HDPE: Properties after repetitive processing

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Spontaneous formation of three-dimensionally ordered Bi-rich nanostructures within GaAs_{1-x}Bi_x/GaAs quantum wells

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Development of Magnetic Losses During Accelerated Corrosion Tests for Nd-Fe-B Magnets Used in Permanent Magnet Generators

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Optical Projection Tomography Technique for Image Texture and Mass Transport Studies in Hydrogels Based on Gellan Gum

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Long-Lived Triplet Excited States of Bent-Shaped Pentacene Dimers by Intramolecular Singlet Fission

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Phenothiazine and carbazole substituted pyrene based electroluminescent organic semiconductors for OLED devices

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Physical and Chemical Characterization of Real-World Particle Number and Mass Emissions from City Buses in Finland

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Remarkable Dependence of the Final Charge Separation Efficiency on the Donor-Acceptor Interaction in Photoinduced Electron Transfer

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A Three-Component Assembly Promoted by Boronic Acids Delivers a Modular Fluorophore Platform (BASHY Dyes)

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Graphene-intercalated Fe₂O₃/TiO₂ heterojunctions for efficient photoelectrolysis of water

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Research output: Contribution to journal > Article > Scientific > peer-review

PIP2 and Talin Join Forces to Activate Integrin

Orlowski, A., Kukkurainen, S., Pöyry, A., Rissanen, S., Vattulainen, I., Hytönen, V. P. & Róg, T., 24 Sep 2015, In : Journal of Physical Chemistry Part B. 119, 38, p. 12381-12389 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Construction of an Interconnected Nanostructured Carbon Black Network: Development of Highly Stretchable and Robust Elastomeric Conductors

Bhagavatheswaran, E. S., Parsekar, M., Das, A., Le, H. H., Wiessner, S., Stöckelhuber, K. W., Schmaucks, G. & Heinrich, G., 17 Sep 2015, In : Journal of Physical Chemistry C. 119, 37, p. 21723-21731 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Effect of spraying parameters on the microstructural and corrosion properties of HVOF-sprayed Fe-Cr-Ni-B-C coatings

Milanti, A., Matikainen, V., Koivuluoto, H., Bolelli, G., Lusvardi, L. & Vuoristo, P., 15 Sep 2015, In : Surface and Coatings Technology. 277, p. 81-90 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Superatom Model for Ag-S Nanocluster with Delocalized Electrons

Goh, J. Q. & Akola, J., 10 Sep 2015, In : Journal of Physical Chemistry C. 119, 36, p. 21165-21172 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Molecular Design of Light-Responsive Hydrogels, for in Situ Generation of Fast and Reversible Valves for Microfluidic Applications

Ter Schiphorst, J., Coleman, S., Stumpel, J. E., Ben Azouz, A., Diamond, D. & Schenning, A. P. H. J., 8 Sep 2015, In : Chemistry of Materials. 27, 17, p. 5925-5931 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Measuring synthesis yield in graphene oxide synthesis by modified hummers method

Frankberg, E. J., George, L., Efimov, A., Honkanen, M., Pessi, J. & Levänen, E., 2 Sep 2015, In : Fullerenes Nanotubes and Carbon Nanostructures. 23, 9, p. 755-759 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Unintentional boron contamination of MBE-grown GaInP/AlGaInP quantum wells

Tukiainen, A., Likonen, J., Toikkanen, L. & Leinonen, T., 1 Sep 2015, In : Journal of Crystal Growth. 425, p. 60-63
Research output: Contribution to journal > Article > Scientific > peer-review

Searching for a robust strategy for minimizing alkali chlorides in fluidized bed boilers during burning of high SRF-energy-share fuel

Bajamundi, C. J. E., Vainikka, P., Hedman, M., Silvennoinen, J., Heinanen, T., Taipale, R. & Konttinen, J., 1 Sep 2015, In : Fuel. 155, p. 25-36 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

How large are nonadiabatic effects in atomic and diatomic systems?

Yang, Y., Kylänpää, I., Tubman, N. M., Krogel, J. T., Hammes-Schiffer, S. & Ceperley, D. M., Sep 2015, In : Journal of Chemical Physics. 143, 12, 124308.

Research output: Contribution to journal > Article > Scientific > peer-review

Fe₂O₃-TiO₂ nanosystems by a hybrid PE-CVD/ALD approach: controllable synthesis, growth mechanism, and photocatalytic properties

Barreca, D., Carraro, G., Warwick, M. E. A., Kaunisto, K., Gasparotto, A., Gombac, V., Sada, C., Turner, S., Van Tendeloo, G., Maccato, C. & Fornasiero, P., 28 Aug 2015, In : CrystEngComm. 17, 32, p. 6219-6226 8 p.

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Effects of thinning and heating for TiO₂/AlInP junctions

Mäkelä, J., Tuominen, M., Yasir, M., Polojärvi, V., Aho, A., Tukiainen, A., Kuzmin, M., Punkkinen, M. P. J., Laukkanen, P., Kokko, K. & Guina, M., 24 Aug 2015, In : Journal of Electron Spectroscopy and Related Phenomena. 205, p. 6-9 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Electrospun Black Titania Nanofibers: Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance

Lepcha, A., Maccato, C., Mettenböcker, A., Andreu, T., Mayrhofer, L., Walter, M., Olthof, S., Ruoko, T. P., Klein, A., Moseler, M., Meerholz, K., Morante, J. R., Barreca, D. & Mathur, S., 20 Aug 2015, In : Journal of Physical Chemistry C. 119, 33, p. 18835-18842 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of relative humidity and physical load during storage on dustiness of inorganic nanomaterials: implications for testing and risk assessment

Levin, M., Rojas, E., Vanhala, E., Vippola, M., Liguori, B., Kling, K. I., Koponen, I. K., Mølhav, K., Tuomi, T., Gregurec, D., Moya, S. & Jensen, K. A., 14 Aug 2015, In : Journal of Nanoparticle Research. 17, 8, 337.

Research output: Contribution to journal > Article > Scientific > peer-review

Effect of Phosphatidic Acid on Biomembrane: Experimental and Molecular Dynamics Simulations Study

Kwalek, U., Kulig, W., Wydro, P., Nowakowska, M., Róg, T. & Kepczynski, M., 6 Aug 2015, In : Journal of Physical Chemistry Part B. 119, 31, p. 10042-10051 10 p.

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Formation and stability of carbon nanotube network in natural rubber: Effect of non-rubber components

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Research output: Contribution to journal > Article > Scientific > peer-review

Responsive Polymer Photonics

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Research output: Contribution to journal > Article > Scientific > peer-review

Nonlinear Optical Properties of Fluorescent Dyes Allow for Accurate Determination of Their Molecular Orientations in Phospholipid Membranes

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Research output: Contribution to journal › Article › Scientific › peer-review

High quality sub-10 nm graphene nanoribbons by on-chip PS-b-PDMS block copolymer lithography

Rasappa, S., Caridad, J. M., Schulte, L., Cagliani, A., Borah, D., Morris, M. A., Bøggild, P. & Ndoni, S., 29 Jul 2015, In : RSC Advances. 5, 82, p. 66711-66717 7 p.

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Quantifying non-ergodic dynamics of force-free granular gases

Bodrova, A., Chechkin, A. V., Cherstvy, A. G. & Metzler, R., 27 Jul 2015, In : Physical Chemistry Chemical Physics. 17, 34, p. 21791-21798 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Photoinduced Electron Transfer in CdSe/ZnS Quantum Dot-Fullerene Hybrids

Virkki, K., Demir, S., Lemmetyinen, H. & Tkachenko, N. V., 23 Jul 2015, In : Journal of Physical Chemistry C. 119, 31, p. 17561-17572 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Role of Internal Water on Protein Thermal Stability: The Case of Homologous G Domains

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Research output: Contribution to journal › Article › Scientific › peer-review

Electricity production by a microbial fuel cell fueled by brewery wastewater and the factors in its membrane deterioration

Çetinkaya, A. Y., Köroğlu, E. O., Demir, N. M., Baysoy, D. Y., Özkaya, B. & Çakmakçı, M., 20 Jul 2015, In : Chinese Journal of Catalysis. 36, 7, p. 1068-1076 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Lithography-free oxide patterns as templates for self-catalyzed growth of highly uniform GaAs nanowires on Si(111)

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Measuring optical anisotropy in poly(3,4-ethylene dioxythiophene): poly(styrene sulfonate) films with added graphene

Isoniemi, T., Tuukkanen, S., Cameron, D. C., Simonen, J. & Toppari, J. J., 9 Jul 2015, In : Organic Electronics. 25, p. 317-323 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Synthesis and study of electrochemical and optical properties of substituted perylenemonoimides in solutions and on solid surfaces

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Optimal emission enhancement in orthogonal double-pulse laser-induced breakdown spectroscopy

Sanginés, R., Contreras, V., Sobral, H. & Robledo-Martinez, A., 6 Jul 2015, In : Spectrochimica Acta Part B: Atomic Spectroscopy. 110, p. 139-145 7 p., 4935.

Research output: Contribution to journal › Article › Scientific › peer-review

A comparison of rheology and FTIR in the study of polypropylene and polystyrene photodegradation

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On the biomaterials for nanostructured ocular therapeutics

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Research output: Contribution to journal › Article › Scientific › peer-review

Synthesis and Photophysical Properties of Two Diazaporphyrin-Porphyrin Hetero Dimers in Polar and Nonpolar Solutions
Abou-Chahine, F., Fujii, D., Imahori, H., Nakano, H., Tkachenko, N. V., Matano, Y. & Lemmetyinen, H., 18 Jun 2015, In : Journal of Physical Chemistry Part B. 119, 24, p. 7328-7337 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Catalytic effect of Ca and K on CO₂ gasification of spruce wood char

Perander, M., DeMartini, N., Brink, A., Kramb, J., Karlström, O., Hemming, J., Moilanen, A., Konttinen, J. & Hupa, M., 15 Jun 2015, In : Fuel. 150, p. 464-472 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Inverted critical adsorption of polyelectrolytes in confinement

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PEGylated liposomes as carriers of hydrophobic porphyrins

Dzieciuch, M., Rissanen, S., Szydłowska, N., Bunker, A., Kumorek, M., Jamróz, D., Vattulainen, I., Nowakowska, M., Róg, T. & Kepczynski, M., 4 Jun 2015, In : Journal of Physical Chemistry Part B. 119, 22, p. 6646-6657 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Equipment for obtaining polymeric nanofibres by electrospinning technology: II. The obtaining of polymeric nanofibers

Manea, L. R., Cramariuc, B., Popescu, V., Cramariuc, R., Sandu, I. & Cramariuc, O., 1 Jun 2015, In : Materiale Plastice. 52, 2, p. 180-185 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Polymorph crystal packing effects on charge transfer emission in the solid state

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Photodiagnostic et chirurgie guidés par la fluorescence

Translated title of the contribution: : Fluorescence diagnosis and fluorescence-guided surgery

Mordon, S. & Bourg-Heckly, G., 1 Jun 2015, In : ACTUALITE CHIMIQUE. 397-398, p. 41-45 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned poss substrates fabricated by nanoimprint lithography

Borah, D., Rasappa, S., Salaun, M., Zellsman, M., Lorret, O., Lontos, G., Ntetsikas, K., Avgeropoulos, A. & Morris, M. A., 1 Jun 2015, In : Advanced Functional Materials. 25, 22, p. 3425-3432 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

La thérapie photodynamique: État de l'art et perspectives

Translated title of the contribution: : The photodynamic therapy: State of the art and perspectives

Frochot, C., Barberi-Heyob, M., Blanchard-Desce, M., Bolotine, L., Bonneau, S., Jimenez, C. M., Durand, J. O., Lassalle, H. P., Lemerrier, G., Mordon, S., Maillard, P., Sol, V., Vever-Bizet, C. & Vicendo, P., 1 Jun 2015, In : ACTUALITE CHIMIQUE. 397-398, p. 46-50 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

A facile route to synthesis of S-doped TiO₂ nanoparticles for photocatalytic activity

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Hydration of hydroxyl and amino groups examined by molecular dynamics and neutron scattering

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Research output: Contribution to journal › Article › Scientific › peer-review

Spectral and kinetic characteristics of indotricarbocyanine complexation with albumin

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Effect of melting state on the thermal shock resistance and thermal conductivity of APS ZrO₂-7.5wt.% Y₂O₃ coatings

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Research output: Contribution to journal › Article › Scientific › peer-review

Modeling photoionization of aqueous DNA and its components

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Research output: Contribution to journal › Article › Scientific › peer-review

Multistep reactions of water with small Pd_n clusters: A first principles study

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Ergodicity breaking and particle spreading in noisy heterogeneous diffusion processes

Cherstvy, A. G. & Metzler, R., 14 Apr 2015, In : Journal of Chemical Physics. 142, 14, 144105.

Research output: Contribution to journal › Article › Scientific › peer-review

Workplace performance of a loose-fitting powered air purifying respirator during nanoparticle synthesis

Koivisto, A. J., Aromaa, M., Koponen, I. K., Fransman, W., Jensen, K. A., Mäkelä, J. M. & Hämeri, K. J., 9 Apr 2015, In : Journal of Nanoparticle Research. 17, 4

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Rate constant and thermochemistry for K + O₂ + N₂ = KO₂ + N₂

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Oxidation of cholesterol does not alter significantly its uptake into high-density lipoprotein particles

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Research output: Contribution to journal › Article › Scientific › peer-review

Effect of rheological properties of dissolved cellulose/microfibrillated cellulose blend suspensions on film forming

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Research output: Contribution to journal › Article › Scientific › peer-review

Effects of fresh lubricant oils on particle emissions emitted by a modern gasoline direct injection passenger car

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Research output: Contribution to journal › Article › Scientific › peer-review

Tribology of HVOF- and HVOF-sprayed WC-10Co4Cr hardmetal coatings: A comparative assessment

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Research output: Contribution to journal > Article > Scientific > peer-review

High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a KCl-K₂SO₄ salt mixture

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Research output: Contribution to journal > Article > Scientific > peer-review

Oxidation of the GaAs semiconductor at the Al₂O₃/GaAs junction

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CO oxidation catalyzed by neutral and anionic Cu₂₀ clusters: Relationship between charge and activity

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Synthesis, characterization and solid-state photoluminescence studies of six alkoxy phenylene ethynylene dinuclear palladium(II) rods

Figueira, J., Czardybon, W., Mesquita, J. C., Rodrigues, J., Lahoz, F., Russo, L., Valkonen, A. & Rissanen, K., 7 Mar 2015, In : DALTON TRANSACTIONS. 44, 9, p. 4003-4015 13 p.
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Resveratrol interferes with the aggregation of membrane-bound human-IAPP: A molecular dynamics study

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Crystal structure of 2-methylpiperazine-1,4-dium bis(hydrogen maleate)

Wecharine, I., Valkonen, A., Rzaigui, M., Sta, W. S. & Smith, G., 1 Mar 2015, In : Acta Crystallographica Section E : Structure Reports Online. 71, 3, p. o193-o194
Research output: Contribution to journal > Article > Scientific > peer-review

Exploring the role of stearic acid in modified zinc aluminum layered double hydroxides and their acrylonitrile butadiene rubber nanocomposites

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Polymer looping is controlled by macromolecular crowding, spatial confinement, and chain stiffness

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Neutralized chimeric avidin binding at a reference biosensor surface

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Encapsulation of secondary and tertiary ammonium salts by resorcinarenes and pyrogallarenes: The effect of size and charge concentration

Beyeh, N. K., Pan, F., Valkonen, A. & Rissanen, K., 7 Feb 2015, In : CrystEngComm. 17, 5, p. 1182-1188 7 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Second-harmonic generation imaging of semiconductor nanowires with focused vector beams

Bautista, G., Mäkitalo, J., Chen, Y., Dhaka, V., Grasso, M., Karvonen, L., Jiang, H., Huttunen, M. J., Huhtio, T., Lipsanen, H. & Kauranen, M., 6 Feb 2015, In : Nano Letters. 15, 3, p. 1564-1569 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Sulfonated polyetheretherketone/polypropylene polymer blends for the production of photoactive materials

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Research output: Contribution to journal > Article > Scientific > peer-review

Supramolecular hierarchy among halogen and hydrogen bond donors in light-induced surface patterning

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Kinetics of polymer looping with macromolecular crowding: Effects of volume fraction and crowder size

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Research output: Contribution to journal > Article > Scientific > peer-review

Non-universal tracer diffusion in crowded media of non-inert obstacles

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Rational design of a printable, highly conductive silicone-based electrically conductive adhesive for stretchable radio-frequency antennas

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Research output: Contribution to journal > Article > Scientific > peer-review

Second-Harmonic Generation from Metal Nanoparticles: Resonance Enhancement versus Particle Geometry

Czaplicki, R., Mäkitalo, J., Siikanen, R., Husu, H., Lehtolahti, J., Kuittinen, M. & Kauranen, M., 14 Jan 2015, In : Nano Letters. 15, 1, p. 530-534 5 p.

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Oxidation half-reaction of aqueous nucleosides and nucleotides via photoelectron spectroscopy augmented by ab initio calculations

Schroeder, C. A., Pluharová, E., Seidel, R., Schroeder, W. P., Faubel, M., Slavíček, P., Winter, B., Jungwirth, P. & Bradforth, S. E., 14 Jan 2015, In : Journal of the American Chemical Society. 137, 1, p. 201-209 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Manipulation of polycarbonate urethane bulk properties via incorporated zwitterionic polynorbomene for tissue engineering application

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Research output: Contribution to journal > Article > Scientific > peer-review

Photophysical properties of Sn (IV)tetraphenylporphyrin-pyrene dyad with a β -vinyl linker

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Research output: Contribution to journal › Article › Scientific › peer-review

Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as π -acceptors for anions

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A comparison of five optical surface topography measurement methods

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Appropriate pricing policy needed worldwide for improving water services infrastructure

Hukka, J. J. & Katko, T. S., 1 Jan 2015, In : Journal American Water Works Association. 107, 1, p. E37-E46

Research output: Contribution to journal › Article › Scientific › peer-review

π -Expanded α,β -unsaturated ketones: Synthesis, optical properties, and two-photon-induced polymerization

Nazir, R., Bourquard, F., Balčiūnas, E., Smoleń, S., Gray, D., Tkachenko, N. V., Farsari, M. & Gryko, D. T., 2015, In : ChemPhysChem. 16, 3, p. 682-690 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Role of the bridge in photoinduced electron transfer in porphyrin-fullerene dyads

Pelado, B., Abou-Chahine, F., Calbo, J., Caballero, R., delaCruz, P., Junquera-Hernández, J. M., Ortí, E., Tkachenko, N. V. & Langa, F., 2015, In : Chemistry: A European Journal. 21, 15, p. 5814-5825 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Ballistic and numerical simulation of impacting goods on conveyor belt rubber

Molnar, W., Nugent, S., Lindroos, M., Apostol, M. & Varga, M., 2015, In : Polymer Testing. 42, p. 1-7 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Synthesis of fluorescent naphthoquinolizines via intramolecular houben-hoesch reaction

Stasyuk, A. J., Smoleń, S., Glodkowska-Mrowka, E., Brutkowski, W., Cyrański, M. K., Tkachenko, N. & Gryko, D. T., 2015, In : Chemistry - An Asian Journal. 10, 3, p. 553-558 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Synthesis, crystal structure, spectral, dielectric characteristics and conduction mechanism of two novel carboxylates of 1-benzhydrylpiperazine

Wacharine, I., Valkonen, A., Rzaigui, M. & Smirani, W., 2015, In : Monatshefte fur Chemie. 146, 12, p. 2007-2020 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Chemolithotrophic denitrification in biofilm reactors

Di Capua, F., Papirio, S., Lens, P. N. L. & Esposito, G., 2015, In : Chemical Engineering Journal. 280, p. 643-657 15 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Van der Waals interactions are critical in Car-Parrinello molecular dynamics simulations of porphyrin-fullerene dyads

Karilainen, T., Cramariuc, O., Kuisma, M., Tappura, K. & Hukka, T. I., 2015, In : Journal of Computational Chemistry. 36, 9, p. 612-621 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Characterisation of novel regenerated cellulosic, viscose, and cotton fibres and the dyeing properties of fabrics

Kamppuri, T., Vehviläinen, M., Puolakka, A., Honkanen, M., Vippola, M. & Rissanen, M., 2015, In : Coloration Technology. 131, 5, p. 396-402 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Geometry controlled anomalous diffusion in random fractal geometries: Looking beyond the infinite cluster

Mardoukhi, Y., Jeon, J-H. & Metzler, R., 2015, In : Physical Chemistry Chemical Physics. 17, 44, p. 30134-30147 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

Stumpel, J. E., Gil, E. R., Spoelstra, A. B., Bastiaansen, C. W. M., Broer, D. J. & Schenning, A. P. H. J., 2015, In : *Advanced Functional Materials*. 25, 22, p. 3314–3320

Research output: Contribution to journal > Article > Scientific > peer-review

Water-responsive dual-coloured photonic polymer coatings based on cholesteric liquid crystals

Stumpel, J. E., Broer, D. J. & Schenning, A. P. H. J., 2015, In : *RSC Advances*. 5, 115, p. 94650-94653 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Coulomb explosion during the early stages of the reaction of alkali metals with water

Mason, P. E., Uhlig, F., Vaněk, V., Buttersack, T., Bauerecker, S. & Jungwirth, P., 2015, In : *Nature Chemistry*. 7, 3, p. 250-254 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Block co-polymers for nanolithography: Rapid microwave annealing for pattern formation on substrates

Borah, D., Rasappa, S., Sentharamakannan, R., Holmes, J. D. & Morris, M. A., 2015, In : *Polymers*. 7, 4, p. 592-609 18 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Switchavidin: Reversible biotin-avidin-biotin bridges with high affinity and specificity

Taskinen, B., Zauner, D., Lehtonen, S. I., Koskinen, M., Thomson, C., Kähkönen, N., Kukkurainen, S., Määttä, J. A. E., Ihalainen, T. O., Kulomaa, M. S., Gruber, H. J. & Hytönen, V. P., 17 Dec 2014, In : *Bioconjugate Chemistry*. 25, 12, p. 2233-2243 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

DNA lesion can facilitate base ionization: Vertical ionization energies of aqueous 8-oxoguanine and its nucleoside and nucleotide

Palivec, V., Pluharová, E., Unger, I., Winter, B. & Jungwirth, P., 4 Dec 2014, In : *Journal of Physical Chemistry Part B*. 118, 48, p. 13833-13837 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Time-resolved fluorescence methods (IUPAC technical report)

Lemmetyinen, H., Tkachenko, N. V., Valeur, B., Hotta, J. I., Ameloot, M., Ernsting, N. P., Gustavsson, T. & Boens, N., 1 Dec 2014, In : *Pure and Applied Chemistry*. 86, 12, p. 1969-1998 30 p.

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Processable aromatic polyesters based on bisphenol derived from cashew nut shell liquid: synthesis and characterization

Tawade, B. V., Salunke, J. K., Sane, P. S. & Wadgaonkar, P. P., 18 Nov 2014, In : *JOURNAL OF POLYMER RESEARCH*. 21, 12

Research output: Contribution to journal > Article > Scientific > peer-review

Electromagnetic interference shielding effectiveness of MWCNT filled poly(ether sulfone) and poly(ether imide) nanocomposites

Mohanty, A. K., Ghosh, A., Sawai, P., Pareek, K., Banerjee, S., Das, A., Pötschke, P., Heinrich, G. & Voit, B., 1 Nov 2014, In : *Polymer Engineering and Science*. 54, 11, p. 2560-2570 11 p.

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A supramolecular approach to photoresponsive thermo/solvoplastic block copolymer elastomers

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Research output: Contribution to journal > Article > Scientific > peer-review

Impact of selective catalytic reduction on exhaust particle formation over excess ammonia events

Amanatidis, S., Ntziachristos, L., Giechaskiel, B., Bergmann, A. & Samaras, Z., 7 Oct 2014, In : *Environmental Science and Technology*. 48, 19, p. 11527-11534 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Global analysis of human nonreceptor tyrosine kinase specificity using high-density peptide microarrays

Deng, Y., Alicea-Velázquez, N. L., Bannwarth, L., Lehtonen, S. I., Boggon, T. J., Cheng, H. C., Hytönen, V. P. & Turk, B. E., 3 Oct 2014, In : Journal of Proteome Research. 13, 10, p. 4339-4346 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Rapid, Brushless Self-assembly of a PS-b-PDMS Block Copolymer for Nanolithography

Rasappa, S., Schulte, L., Borah, D., Morris, M. A. & Ndoni, S., 1 Oct 2014, In : Colloids and Interface Science Communications. 2, p. 1-5 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Effect of head group size on the photoswitching applications of azobenzene Disperse Red 1 analogues

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Research output: Contribution to journal > Article > Scientific > peer-review

Pyrene based conjugated materials: Synthesis, characterization and electroluminescent properties

Salunke, J. K., Sonar, P., Wong, F. L., Roy, V. A. L., Lee, C. S. & Wadgaonkar, P. P., 26 Sep 2014, In : Physical Chemistry Chemical Physics. 16, 42, p. 23320-23328 9 p.

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Density functional theory study of transition metals doped B₈₀ fullerene

Wang, J., Ma, L., Liang, Y., Gao, M. & Wang, G., 22 Sep 2014, In : Journal of Theoretical and Computational Chemistry. 13, 6, 1450050.

Research output: Contribution to journal > Article > Scientific > peer-review

Recent twists in photoactuation and photoalignment control

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Research output: Contribution to journal > Article > Scientific > peer-review

Optical spectroscopy of the bulk and interfacial hydrated electron from ab initio calculations

Uhlig, F., Herbert, J. M., Coons, M. P. & Jungwirth, P., 4 Sep 2014, In : Journal of Physical Chemistry A. 118, 35, p. 7507-7515 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The role of linked phospholipids in the rubber-filler interaction in carbon nanotube (CNT) filled natural rubber (NR) composites

Le, H. H., Abhijeet, S., Ilisch, S., Klehm, J., Henning, S., Beiner, M., Sarkawi, S. S., Dierkes, W., Das, A., Fischer, D., Stöckelhuber, K. W., Wiessner, S., Khatiwada, S. P., Adhikari, R., Pham, T., Heinrich, G. & Radsch, H. J., 2 Sep 2014, In : Polymer. 55, 18, p. 4738-4747 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Effect of silane integrated sol-gel derived in situ silica on the properties of nitrile rubber

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Research output: Contribution to journal > Article > Scientific > peer-review

Molecular engineering of avidin and hydrophobin for functional self-assembling interfaces

Kurppa, K., Hytönen, V. P., Nakari-Setälä, T., Kulomaa, M. S. & Linder, M. B., 1 Aug 2014, In : Colloids and Surfaces B: Biointerfaces. 120, p. 102-109 8 p.

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Performance testing of iron based thermally sprayed HVOF coatings in a biomass-fired fluidised bed boiler

Oksa, M., Varis, T. & Ruusuvoori, K., 25 Jul 2014, In : Surface and Coatings Technology. 251, p. 191-200 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Accurate description of calcium solvation in concentrated aqueous solutions

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Surface behavior of hydrated guanidinium and ammonium ions: A comparative study by photoelectron spectroscopy and molecular dynamics

Werner, J., Wernersson, E., Ekholm, V., Ottosson, N., Öhrwall, G., Heyda, J., Persson, I., Söderström, J., Jungwirth, P. & Björneholm, O., 26 Jun 2014, In : Journal of Physical Chemistry Part B. 118, 25, p. 7119-7127 9 p.

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Carbon nanotubes-filled thermoplastic polyurethane-urea and carboxylated acrylonitrile butadiene rubber blend nanocomposites

Mahmood, N., Khan, A. U., Stöckelhuber, K. W., Das, A., Jehnichen, D. & Heinrich, G., 5 Jun 2014, In : Journal of Applied Polymer Science. 131, 11

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Hydration of the chloride ion in concentrated aqueous solutions using neutron scattering and molecular dynamics

Pluhařová, E., Fischer, H. E., Mason, P. E. & Jungwirth, P., 19 May 2014, In : Molecular Physics. 112, 9-10, p. 1230-1240 11 p.

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Bioprocessing of enhanced cellulase production from a mutant of *Trichoderma asperellum* RCK2011 and its application in hydrolysis of cellulose

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Research output: Contribution to journal > Article > Scientific > peer-review

Light-fuelled transport of large dendrimers and proteins

Koskela, J. E., Liljeström, V., Lim, J., Simanek, E. E., Ras, R. H. A., Priimagi, A. & Kostianen, M. A., 14 May 2014, In : Journal of the American Chemical Society. 136, 19, p. 6850-6853 4 p.

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Microphase mechanism of "superquenching" of luminescent probes in aqueous solutions of DNA and some other polyelectrolytes

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Research output: Contribution to journal > Article > Scientific > peer-review

Protein conformation as a regulator of cell-matrix adhesion

Hytönen, V. P. & Wehrle-Haller, B., 14 Apr 2014, In : Physical Chemistry Chemical Physics. 16, 14, p. 6342-6357 16 p.

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Deciphering the infrared spectrum of the protonated water pentamer and the hybrid Eigen-Zundel cation

Kulig, W. & Agmon, N., 14 Mar 2014, In : Physical Chemistry Chemical Physics. 16, 10, p. 4933-4941 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Fabrication of ssDNA/oligo(ethylene glycol) monolayers by promoted exchange reaction with thiol and disulfide substituents

Khan, M. N. & Zhamikov, M., 13 Feb 2014, In : Journal of Physical Chemistry C. 118, 6, p. 3093-3101 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Azopolymer-based micro- and nanopatterning for photonic applications

Priimagi, A. & Shevchenko, A., 1 Feb 2014, In : Journal of Polymer Science. Part B, Polymer Physics. 52, 3, p. 163-182 20 p.

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Both zundel and eigen isomers contribute to the IR spectrum of the gas-phase H₉O₄ + cluster

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Research output: Contribution to journal › Article › Scientific › peer-review

Natural thermal adaptation increases heat shock protein levels and decreases oxidative stress

Oksala, N. K. J., Ekmekçi, F. G., Özsoy, E., Kirankaya, Ş., Kokkola, T., Emecen, G., Lappalainen, J., Kaarniranta, K. & Atalay, M., 1 Jan 2014, In : REDOX BIOLOGY. 3, p. 25-28 4 p.

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A microscopic view of the mechanisms of active transport across the cellular membrane

Enkavi, G., Li, J., Wen, P., Thangapandian, S., Moradi, M., Jiang, T., Han, W. & Tajkhorshid, E., 2014, In : Annual Reports in Computational Chemistry. 10, p. 77-125 49 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Direct observation of the collapse of the delocalized excess electron in water

Savolainen, J., Uhlig, F., Ahmed, S., Hamm, P. & Jungwirth, P., 2014, In : Nature Chemistry. 6, 8, p. 697-701 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

A full-potential linearized augmented plane wave study of the interaction of CO₂ with α -Pu (020) surface nanolayers

Wang, J. & Ray, A. K., 2014, In : Journal of Computational and Theoretical Nanoscience. 11, 7, p. 1710-1717 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Molekuly a ionty v pohybu: Počítačové simulace biochemických a biofyzikálních procesů

Translated title of the contribution: : Molecules and ions in motion: Computer simulations of biochemical and biophysical processes

Jungwirth, P., 2014, In : Chemické Listy. 108, 4, p. 278-284 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Magnetic origin of the chemical balance in alloyed Fe-Cr stainless steels: First-principles and Ising model study

Airiskallio, E., Nurmi, E., Väyrynen, I. J., Kokko, K., Ropo, M., Punkkinen, M. P. J., Johansson, B. & Vitos, L., 2014, In : Computational Materials Science. 92, p. 135-140 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of non-rubber components of NR on the carbon nanotube (CNT) localization in SBR/NR blends

Le, H. H., Parsekar, M., Ilisch, S., Henning, S., Das, A., Stöckelhuber, K. W., Beiner, M., Ho, C. A., Adhikari, R., Wießner, S., Heinrich, G. & Rausch, H. J., 2014, In : Macromolecular Materials and Engineering. 299, 5, p. 569-582 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Novel derivatives of bacteriochlorophyll a: Complex formation with albumin and the mechanism of tumor cell photodamage

Akimova, A. V., Grin, M. A., Golovina, G. V., Kokrashvili, T. A., Vinogradov, A. M., Mironov, A. F., Rychkov, G. N., Shtil, A. A., Kuzmin, V. A. & Durandin, N. A., 2014, In : DOKLADY BIOCHEMISTRY AND BIOPHYSICS. 454, 1, p. 17-20 4 p.

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Fabrication of 3-D nanodimensioned electric double layer capacitor structures using block copolymer templates

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Study of the kinetics and mechanism of rapid self-assembly in block copolymer thin films during solvo-microwave annealing

Mokarian-Tabari, P., Cummins, C., Rasappa, S., Simao, C., Torres, C. M. S., Holmes, J. D. & Morris, M. A., 2014, In : Langmuir. 30, 35, p. 10728-10739 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Kinetics of bioconjugate nanoparticle label binding in a sandwich-type immunoassay

Näreoja, T., Ebner, A., Gruber, H. J., Taskinen, B., Kienberger, F., Hänninen, P. E., Hytönen, V. P., Hinterdorfer, P. & Härmä, H., 2014, In : *Analytical and Bioanalytical Chemistry*. 406, 2, p. 493-503 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Self-assembly of polystyrene-block-poly(4-vinylpyridine) block copolymer on molecularly functionalized silicon substrates: Fabrication of inorganic nanostructured etchmask for lithographic use

Cummins, C., Borah, D., Rasappa, S., Chaudhari, A., Ghoshal, T., O'Driscoll, B. M. D., Carolan, P., Petkov, N., Holmes, J. D. & Morris, M. A., 21 Dec 2013, In : *Journal of Materials Chemistry C*. 1, 47, p. 7941-7951 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Analysis of free, mono- and diacetylated polyamines from human urine by LC-MS/MS

Häkkinen, M. R., Roine, A., Auriola, S., Tuokko, A., Veskimäe, E., Keinänen, T. A., Lehtimäki, T., Oksala, N. & Vepsäläinen, J., 15 Dec 2013, In : *JOURNAL OF CHROMATOGRAPHY B: ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES*. 941, p. 81-89 9 p.

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Location of dispersing agent in rubber nanocomposites during mixing process

Le, H. H., Oßwald, K., Wießner, S., Das, A., Stöckelhuber, K. W., Boldt, R., Gupta, G., Heinrich, G. & Radusch, H. J., 13 Dec 2013, In : *Polymer*. 54, 26, p. 7009-7021 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Proliferation and differentiation of adipose stem cells towards smooth muscle cells on poly(trimethylene carbonate) membranes

German, S. J., Behbahani, M., Miettinen, S., Grijpma, D. W. & Haimi, S. P., Dec 2013, In : *Macromolecular symposia*. 334, 1, p. 133-142 10 p.

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Effect of surface morphology of poly(μ -caprolactone) scaffolds on adipose stem cell adhesion and proliferation

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Human adipose stem cells in chondrogenic differentiation medium without growth factors differentiate towards annulus fibrosus phenotype in vitro

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Research output: Contribution to journal › Article › Scientific › peer-review

Fabrication of ssDNA/Oligo(ethylene glycol) monolayers and patterns by exchange reaction promoted by ultraviolet light irradiation

Khan, M. N. & Zharnikov, M., 27 Nov 2013, In : *Journal of Physical Chemistry C*. 117, 47, p. 24883-24893 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Release of halide ions from the buried active site of the haloalkane dehalogenase LinB revealed by stopped-flow fluorescence analysis and free energy calculations

Hladilkova, J., Prokop, Z., Chaloupkova, R., Damborsky, J. & Jungwirth, P., 21 Nov 2013, In : *Journal of Physical Chemistry Part B*. 117, 46, p. 14329-14335 7 p.

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Ion pairing in aqueous lithium salt solutions with monovalent and divalent counter-anions

Pluhařová, E., Mason, P. E. & Jungwirth, P., 21 Nov 2013, In : *Journal of Physical Chemistry A*. 117, 46, p. 11766-11773 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The Halogen Bond in the Design of Functional Supramolecular Materials: Recent Advances

Priimagi, A., Cavallo, G., Metrangolo, P. & Resnati, G., 19 Nov 2013, In : *Accounts of Chemical Research*. 46, 11, p. 2686-2695 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

How conformational flexibility stabilizes the hyperthermophilic elongation factor G-domain

Kalimeri, M., Rahaman, O., Melchionna, S. & Sterpone, F., 7 Nov 2013, In : Journal of Physical Chemistry Part B. 117, 44, p. 13775-13785 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Embedded cluster models for reactivity of the hydrated electron

Uhlir, F. & Jungwirth, P., Nov 2013, In : ZEITSCHRIFT FÜR PHYSIKALISCHE CHEMIE-INTERNATIONAL JOURNAL OF RESEARCH IN PHYSICAL CHEMISTRY AND CHEMICAL PHYSICS. 227, 11, p. 1583-1593 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Soft-graphoepitaxy using nanoimprinted polyhedral oligomeric silsesquioxane substrates for the directed self-Assembly of PS-b-PDMS

Borah, D., Simao, C. D., Senthamaraiannan, R., Rasappa, S., Francone, A., Lorret, O., Salaun, M., Kosmala, B., Kehagias, N., Zelsmann, M., Sotomayor-Torres, C. M. & Morris, M. A., Nov 2013, In : European Polymer Journal. 49, 11, p. 3512-3521 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Porphyrin adsorbed on the (1010) surface of the wurtzite structure of ZnO-conformation induced effects on the electron transfer characteristics

Niskanen, M., Kuisma, M., Cramariuc, O., Golovanov, V., Hukka, T. I., Tkachenko, N. & Rantala, T. T., 28 Oct 2013, In : Physical Chemistry Chemical Physics. 15, 40, p. 17408-17418 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Reversible biofunctionalization of surfaces with a switchable mutant of avidin

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, V. P. & Gruber, H. J., 16 Oct 2013, In : Bioconjugate Chemistry. 24, 10, p. 1656-1668 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Importance of the ion-pair interactions in the OPEP coarse-grained force field: Parametrization and validation

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Zinc coordination spheres in protein structures

Laitaoja, M., Valjakka, J. & Jänis, J., 7 Oct 2013, In : Inorganic Chemistry. 52, 19, p. 10983-10991 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Spectroscopic study of a DNA brush synthesized in situ by surface initiated enzymatic polymerization

Khan, M. N., Tjong, V., Chilkoti, A. & Zharnikov, M., 29 Aug 2013, In : Journal of Physical Chemistry Part B. 117, 34, p. 9929-9938 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Mechanisms of acceleration and retardation of water dynamics by ions

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Irradiation promoted exchange reaction with disulfide substituents

Khan, M. N. & Zharnikov, M., 18 Jul 2013, In : Journal of Physical Chemistry C. 117, 28, p. 14534-14543 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Tuning PDMS brush chemistry by UV-O3 exposure for PS-b-PDMS microphase separation and directed self-assembly

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Research output: Contribution to journal › Article › Scientific › peer-review

Reversal of the Hofmeister series: Specific ion effects on peptides

Paterová, J., Rembert, K. B., Heyda, J., Kurra, Y., Okur, H. I., Liu, W. R., Hilty, C., Cremer, P. S. & Jungwirth, P., 11 Jul 2013, In : Journal of Physical Chemistry Part B. 117, 27, p. 8150-8158 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Photoswitchable hydrogel surface topographies by polymerisation-induced diffusion

Stumpel, J. E., Liu, D., Broer, D. J. & Schenning, A. P. H. J., 2 Jul 2013, In : Chemistry: A European Journal. 19, 33, p. 10922-10927 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Development and characterization of poly(ϵ -caprolactone) hollow fiber membranes for vascular tissue engineering

Diban, N., Haimi, S., Bolhuis-Versteeg, L., Teixeira, S., Miettinen, S., Poot, A., Grijpma, D. & Stamatialis, D., 1 Jul 2013, In : Journal of Membrane Science. 438, p. 29-37 9 p.

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Shape-dependent plasmonic response and directed self-assembly in a new semiconductor building block, indium-doped cadmium oxide (ICO)

Gordon, T. R., Paik, T., Klein, D. R., Naik, G. V., Caglayan, H., Boltasseva, A. & Murray, C. B., 12 Jun 2013, In : Nano Letters. 13, 6, p. 2857-2863 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Cell toxicity and oxidative potential of engine exhaust particles: Impact of using particulate filter or biodiesel fuel blend

Gerlofs-Nijland, M. E., Totlandsdal, A. I., Tzankiozis, T., Leseman, D. L. A. C., Samaras, Z., Låg, M., Schwarze, P., Ntziachristos, L. & Cassee, F. R., 4 Jun 2013, In : Environmental Science and Technology. 47, 11, p. 5931-5938 8 p.

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Cation-specific effects on enzymatic catalysis driven by interactions at the tunnel mouth

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Surface properties and interaction forces of biopolymer-doped conductive polypyrrole surfaces by atomic force microscopy

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Research output: Contribution to journal › Article › Scientific › peer-review

Depth profiling of PLGA copolymer in a novel biomedical bilayer using confocal Raman spectroscopy

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Screening pretreatment methods to enhance thermophilic anaerobic digestion of pulp and paper mill wastewater treatment secondary sludge

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Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group

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Nanoindentation study of light-induced softening of supramolecular and covalently functionalized azo polymers

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Understanding the reinforcing behavior of expanded clay particles in natural rubber compounds

Roop, S., Das, A., Stöckelhuber, K. W., Wang, D. Y., Galiatsatos, V. & Heinrich, G., 14 Apr 2013, In : *Soft Matter*. 9, 14, p. 3798-3808 11 p.

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Biomimetic zinc chlorin-poly(4-vinylpyridine) assemblies: Doping level dependent emission-absorption regimes

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Site-specific analysis of dipole polarizabilities of heterogeneous systems: Iron-doped Si_n ($n = 1-14$) clusters

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Research output: Contribution to journal › Article › Scientific › peer-review

Molecularly functionalized silicon substrates for orientation control of the microphase separation of PS-b-PMMA and PS-b-PDMS block copolymer systems

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Optical vortex generation in nematic liquid crystal light valves

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Fabrication of a sub-10 nm silicon nanowire based ethanol sensor using block copolymer lithography

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Aqueous guanidinium-carbonate interactions by molecular dynamics and neutron scattering: Relevance to ion-protein interactions

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Chemically tailored dielectric-to-metal transition for the design of metamaterials from nanoimprinted colloidal nanocrystals

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Growth behavior and magnetic properties of spherical uranium oxide nanoclusters

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Density functional theory study of FePd_n ($n = 2-14$) clusters and interactions with small molecules

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Networking of ionic liquid modified CNTs in SSBR

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A potential nonthrombogenic small-diameter vascular scaffold with polyurethane/poly(ethylene glycol) hybrid materials by electrospinning technique

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Molecular mechanism of T-cell protein tyrosine phosphatase (TCPTP) activation by mitoxantrone

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New reports on anti-bacterial and anti-candidal activities of fatty acid methyl esters (FAME) obtained from Scenedesmus bijugatus var. bicellularis biomass

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Semiclassical hybrid approach to condensed phase molecular dynamics: Application to the I_2/Kr_{17} cluster

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Transforming anion instability into stability: Contrasting photoionization of three protonation forms of the phosphate ion upon moving into water

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Influence of ionic liquids on the dielectric relaxation behavior of CNT based elastomer nanocomposites

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Research output: Contribution to journal > Article > Scientific > peer-review

Azobenzene photomechanics: Prospects and potential applications

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Kinetics of filler wetting and dispersion in carbon nanotube/rubber composites

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Affine-response model of molecular solvation of ions: Accurate predictions of asymmetric charging free energies

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Solvation and ion-pairing properties of the aqueous sulfate anion: Explicit versus effective electronic polarization

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Impact of biodiesel application at various blending ratios on passenger cars of different fueling technologies

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Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers

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Structural characteristics and flammability of fire retarding EPDM/layered double hydroxide (LDH) nanocomposites

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Highly exfoliated natural rubber/Clay composites by "propping-open procedure": The influence of fatty-acid chain length on exfoliation

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Excited-state polarizability in crystalline sexithiophene: Charge-transfer and vibronic effects

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A novel thermotropic elastomer based on highly-filled LDH-SSB composites

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Surface-relief gratings and stable birefringence inscribed using light of broad spectral range in supramolecular polymer-bisazobenzene complexes

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Layered Double Hydroxides (LDH): A multifunctional versatile system for nanocomposites

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Location of the Azobenzene moieties within the cross-linked liquid-crystalline polymers can dictate the direction of photoinduced bending

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The Discovery of Compounds That Stimulate the Activity of Kallikrein-Related Peptidase3 (KLK3)

Härkönen, H. H., Mattsson, J. M., Määttä, J. A. E., Stenman, U. H., Koistinen, H., Matero, S., Windshügel, B., Poso, A. & Lahtela-Kakkonen, M., 9 Dec 2011, In : CHEMMEDCHEM. 6, 12, p. 2170-2178 9 p.

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Effect of ionic liquid on dielectric, mechanical and dynamic mechanical properties of multi-walled carbon nanotubes/polychloroprene rubber composites

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