

Linking volatile and non-volatile compounds to sensory profiles and consumer liking of wild edible Nordic mushrooms
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Photochemistry of dithiophosphinate $\text{Ni}(\text{S}_2\text{P}(\text{i-Bu})_2)_2$ complex in CCl_4 . Transient species and TD-DFT calculations

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Erosion wear performance of WC-10Co4Cr and Cr_3C_2 -25NiCr coatings sprayed with high-velocity thermal spray processes

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

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

Hyväluoma, J., Hannula, M., Arstila, K., Wang, H., Kulju, S. & Rasa, K., Sep 2018, In : Journal of Analytical and Applied Pyrolysis. 134

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

Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids

Mandal, S., Garcia Iglesias, M., Ince, M., Torres, T. & Tkachenko, N. V., 31 Aug 2018, In : ACS Omega. 3, 8, p. 10048-10057 10 p.

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

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

Tan, L. C., Espinosa-Ortiz, E. J., Nancharaiah, Y. V., van Hullebusch, E. D., Gerlach, R. & Lens, P. N., Aug 2018, In : Journal of Chemical Technology and Biotechnology. 93, 8, p. 2380-2389

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

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

Hiltunen, A., Ruoko, T-P., Iivonen, T., Lahtonen, K., Ali-Löytty, H., Sarlin, E., Valden, M., Leskelä, M. & Tkachenko, N., 31 Jul 2018, In : Sustainable Energy & Fuels. 2, 9, p. 2124-2130

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

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

Rajala, S., Schouten, M., Krijnen, G. & Tuukkanen, S., 23 Jul 2018, In : ACS Omega. 3, 7, p. 8067-8073 7 p.

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

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

Laurén, P., Paukkonen, H., Lipiäinen, T., Dong, Y., Oksanen, T., Räikkönen, H., Ehlers, H., Laaksonen, P., Yliperttula, M. & Laaksonen, T., 1 Jul 2018, In : Pharmaceutical Research. 35, 7, 145.

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

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

Siljander, S., Keinänen, P., Rätty, A., Ramakrishnan, K. R., Tuukkanen, S., Kunnari, V., Harlin, A., Vuorinen, J. & Kanerva, M., 20 Jun 2018, In : International Journal of Molecular Sciences. 19, 6, 1819.

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

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

Pirhonen, M., Peltokangas, M. & Vehkaoja, A., 1 Jun 2018, In : Sensors. 18, 6, 1693.

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., Lekkala, 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

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.

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

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

George, L., Hiltunen, A., Santala, V. & Efimov, A., 1 Jun 2018, In : Journal of Inorganic Biochemistry. 183, p. 94-100 7 p.

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

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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

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

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

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

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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

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Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing

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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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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

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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

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

Iantovics, L. B., Dehmer, M. & Emmert-Streib, F., 1 Feb 2018, In : *Symmetry*. 10, 2, 48.

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

Controlled Growth of Supported ZnO Inverted Nanopyramids with Downward Pointing Tips

Barreca, D., Carraro, G., Maccato, C., Altantzis, T., Kaunisto, K. & Gasparotto, A., Feb 2018, In : *Crystal Growth and Design*. 18, 4, p. 2579-2587 9 p.

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

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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

A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances

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

Adsorption of furfural from torrefaction condensate using torrefied biomass

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

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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Saarimaa, V., Kaleva, A., Paunikallio, T., Nikkanen, J.-P., Heinonen, S., Levänen, E., Väisänen, P. & Markkula, A., 2018, In : Surface and Interface Analysis. 50, 5, p. 564-570

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

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

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

D'Urso, L., Condorelli, M., Puglisi, O., Tempra, C., Lolicato, F., Compagnini, G. & La Rosa, C., 2018, In : Physical Chemistry Chemical Physics. 20, 31, p. 20588-20596 9 p.

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

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

Durandin, N. A., Isokuoritti, J., Efimov, A., Vuorimaa-Laukkanen, E., Tkachenko, N. V. & Laaksonen, T., 2018, In : Chemical Communications. 54, 99, p. 14029-14032 4 p.

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

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

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

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

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

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

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

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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

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

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

Stable carbon isotopic composition of peat columns, subsoil and vegetation on natural and forestry-drained boreal peatlands

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

Supramolecular design principles for efficient photoresponsive polymer-azobenzene complexes

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

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

Saarimaa, V., Kaleva, A., Nikkanen, J-P., Heinonen, S., Levänen, E., Väisänen, P., Markkula, A. & Juhanoja, J., 15 Dec 2017, In : *Surface and Coatings Technology*. 331, p. 137-142 6 p.
Research output: Contribution to journal › Article › Scientific › peer-review

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

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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

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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Waves in hyperbolic and double negative metamaterials including rogues and solitons

Boardman, A. D., Alberucci, A., Assanto, G., Grimalsky, V. V., Kibler, B., McNiff, J., Nefedov, I. S., Rapoport, Y. G. & Valagiannopoulos, C. A., 9 Oct 2017, In : *Nanotechnology*. 28, 44, 444001.
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Understanding selenium biogeochemistry in engineered ecosystems: Transformation and analytical methods

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Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

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

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

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

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Configurational Disorder of Water Hydrogen-Bond Network at the Protein Dynamical Transition

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Vegetable fillers for electric stimuli responsive elastomers

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

Electropolymerized polyazulene as active material in flexible supercapacitors

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Dynamics of a True Moving Bed separation process: Linear model identification and advanced process control

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

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

Catalytic Activity of AuCu Clusters on MgO(100): Effect of Alloy Composition for CO Oxidation

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

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Nematicon-enhanced spontaneous symmetry breaking

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Density functional study of structure and dynamics in liquid antimony and Sb_n clusters

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

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

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

Virkki, K., Hakola, H., Urbani, M., Tejerina, L., Ince, M., Martínez-Díaz, M. V., Torres, T., Golovanova, V., Golovanov, V. & Tkachenko, N. V., 4 May 2017, In : Journal of Physical Chemistry C. 121, 17, p. 9594-9605 12 p.

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

Electron microscopic studies of natural gas oxidation catalyst – Effects of thermally accelerated aging on catalyst microstructure

Honkanen, M., Hansen, T. W., Jiang, H., Kärkkäinen, M., Huuhtanen, M., Heikkinen, O., Kallinen, K., Lahtinen, J., Keiski, R. L., Wagner, J. B. & Vippola, M., 1 May 2017, In : Journal of Catalysis. 349, p. 19-29 11 p.

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

Mah, P. T., Novakovic, D., Saarinen, J., van Landeghem, S., Peltonen, L., Laaksonen, T., Isomäki, A. & Strachan, C. J., May 2017, In : Pharmaceutical Research. 34, 5, p. 957-970 14 p.

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

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

Higashino, T., Nakatsuji, H., Fukuda, R., Okamoto, H., Imai, H., Matsuda, T., Tochio, H., Shirakawa, M., Tkachenko, N. V., Hashida, M., Murakami, T. & Imahori, H., 24 Mar 2017, In : ChemBioChem. 18, 10, p. 951-959 9 p.

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

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

Bilkova, E., Pleskot, R., Rissanen, S., Sun, S., Czogalla, A., Cwiklik, L., Róg, T., Vattulainen, I., Cremer, P. S., Jungwirth, P. & Coskun, Ü., 22 Mar 2017, In : Journal of the American Chemical Society. 139, 11, p. 4019-4024 6 p.

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

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

Milani, R., Houbenov, N., Fernandez-Palacio, F., Cavallo, G., Luzio, A., Haataja, J., Giancane, G., Saccone, M., Priimägi, A., Metrangolo, P. & Ikkala, O., 9 Mar 2017, In : Chem. 2, 3, p. 417-426 10 p.

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

Membrane cholesterol access into a G-protein-coupled receptor

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Izdebskaya, Y., Shvedov, V., Assanto, G. & Krolikowski, W., 15 Feb 2017, In : Nature Communications. 8, 14452.

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

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Siiskonen, A. & Priimägi, A., 1 Feb 2017, In : Journal of Molecular Modeling. 23, 2, 50.

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

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

Balanta, M. A. G., Orsi Gordo, V., Carvalho, A. R. H., Puustinen, J., Alghamdi, H. M., Henini, M., Galeti, H. V. A., Guina, M. & Galvão Gobato, Y., Feb 2017, In : Journal of Luminescence. 182, p. 49-52 4 p.

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

Architectures and codecs for real-time light field streaming

Kovács, P. T., Zare, A., Balogh, T., Bregovic, R. & Gotchev, A., 1 Jan 2017, In : *Journal of Imaging Science and Technology*. 61, 1, 010403.

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

Effect of air gap on the adhesion of PET layer on cardboard substrate in extrusion coating

Suokas, E., 1 Jan 2017, *16th TAPPI European PLACE Conference 2017*. TAPPI Press, p. 529-544 16 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Novel bio-based materials for active and intelligent packaging

Lahti, J., Kamppuri, T. & Kuusipalo, J., 1 Jan 2017, *16th TAPPI European PLACE Conference 2017*. TAPPI Press, 1 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Tampere University of Technology, laboratory of materials science, paper converting and packaging technology Tampere, Finland

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Crystallization and sintering of borosilicate bioactive glasses for application in tissue engineering

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

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

Kordmahaleh, A. A., Naghashzadegan, M., Javaherdeh, K. & Khoshgoftar, M., 2017, In : *International Journal of Photoenergy*. 2017, 4210184.

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

Effects of orientation at the phthalocyanine-CdSe interface on the electron transfer characteristics

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

Fluorescence spectroscopy "knife" for polyplex "cakes": taste the filling

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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 › Review Article › Scientific › peer-review

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

Photoresponsive ionic liquid crystals assembled: Via halogen bond: En route towards light-controllable ion transporters

Saccone, M., Palacio, F. F., Cavallo, G., Dichiarante, V., Virkki, M., Terraneo, G., Priimagi, A. & Metrangolo, P., 2017, In : Faraday Discussions. 203, p. 407-422 16 p.

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

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Synthesis, Structural Characterization, Hirshfeld Surface and Antioxidant Activity Analysis of a Novel Organic Cation Antimonate Complex

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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

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

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

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3D micro-nano structured hybrid scaffolds: An investigation into the role of nanofiber coating on viability, proliferation and differentiation of seeded mesenchymal stem cells

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

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Research output: Book/Report › Anthology › Scientific › peer-review

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

Reinforced chloroprene rubber by in situ generated silica particles: Evidence of bound rubber on the silica surface

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

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

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The Influence of Phosphorus Exposure on a Natural-Gas-Oxidation Catalyst

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

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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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On describing the optoelectronic characteristics of poly(benzodithiophene-: Co -quinoxaline)-fullerene complexes: The influence of optimally tuned density functionals

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

Photoresponsive liquid-crystalline polymer films bilayered with an inverse opal structure

Akamatsu, N., Aizawa, M., Tatsumi, R., Hisano, K., Priimägi, A. & Shishido, A., 2016, In : JOURNAL OF PHOTOPOLYMER SCIENCE AND TECHNOLOGY. 29, 1, p. 145-148 4 p.

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

Preferential adsorption of Cu in a multi-metal mixture onto biogenic elemental selenium nanoparticles

Jain, R., Dominic, D., Jordan, N., Rene, E. R., Weiss, S., van Hullebusch, E. D., Hübner, R. & Lens, P. N. L., 2016, In : Chemical Engineering Journal. 284, p. 917-925

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

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

Higashino, T., Yamada, T., Yamamoto, M., Furube, A., Tkachenko, N. V., Miura, T., Kobori, Y., Jono, R., Yamashita, K. & Imahori, H., 2016, In : Angewandte Chemie (International Edition). 55, 2, p. 629-633

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

Superfluorinated Ionic Liquid Crystals Based on Supramolecular, Halogen-Bonded Anions

Cavallo, G., Terraneo, G., Monfredini, A., Saccone, M., Priimägi, A., Pilati, T., Resnati, G., Metrangolo, P. & Bruce, D. W., 2016, In : Angewandte Chemie (International Edition). 55, 21, p. 6300-6304

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

The electrooxidation-induced structural changes of gold di-superatomic molecules: Au₂₃ vs. Au₂₅

Matsuo, S., Yamazoe, S., Goh, J-Q., Akola, J. & Tsukuda, T., 2016, In : Physical Chemistry Chemical Physics. 18, 6, p. 4822-4827 6 p.

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

Thermal desorption of molecular oxygen from SnO₂ (110) surface: Insights from first-principles calculations

Golovanov, V., Golovanova, V. & Rantala, T. T., 2016, In : Journal of Physics and Chemistry of Solids. 89, p. 15-22 8 p.

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

Evaluating transparent liquid screen overlay as a haptic conductor: Method of enhancing touchscreen based user interaction by a transparent deformable liquid screen overlay

Farooq, A., Evreinov, G., Raisamo, R. & Takahata, D., 31 Dec 2015, 2015 IEEE SENSORS - Proceedings. Institute of Electrical and Electronics Engineers Inc., 7370186

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Inkjet-printed dual microfluidic-based sensor integrated system

Su, W., Cooper, J. R., Cook, B. S., Tentzeris, M. M., Mariotti, C. & Roselli, L., 31 Dec 2015, *2015 IEEE SENSORS - Proceedings*. Institute of Electrical and Electronics Engineers Inc., 7370300

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Synthesis, crystal structure, physico-chemical characterization and dielectric properties of a new hybrid material, 1-Ethylpiperazine-1,4-dium tetrachlorocadmate

Dhib, A. C., Valkonen, A., Rzaigui, M. & Smirani, W., 15 Dec 2015, In : *Journal of Molecular Structure*. 1102, p. 50-56 7 p.

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

The formation and physical properties of the particle emissions from a natural gas engine

Alanen, J., Saukko, E., Lehtoranta, K., Murtonen, T., Timonen, H., Hillamo, R., Karjalainen, P., Kuuluvainen, H., Harra, J., Keskinen, J. & Rönkkö, T., 15 Dec 2015, In : *Fuel*. 162, p. 155-161 7 p.

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

Differential basal-to-apical accessibility of lamin A/C epitopes in the nuclear lamina regulated by changes in cytoskeletal tension

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

Modeling carbon dioxide transport in PDMS-based microfluidic cell culture devices

Mäki, A. J., Peltokangas, M., Kreutzer, J., Auvinen, S. & Kallio, P., 1 Dec 2015, In : *Chemical Engineering Science*. 137, p. 515-524 10 p.

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

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

Kaouk, A., Ruoko, T. P., Gönüllü, Y., Kaunisto, K., Mettenböcker, A., Gurevich, E., Lemmetyinen, H., Ostendorf, A. & Mathur, S., 13 Nov 2015, In : *RSC Advances*. 5, 123, p. 101401-101407 7 p.

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

Tri-functionality of Fe₃O₄-embedded carbon microparticles in microalgae harvesting

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

Comparison of different cationized proteins as biomaterials for nanoparticle-based ocular gene delivery

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

Effect of rubber polarity on selective wetting of carbon nanotubes in ternary blends

Le, H. H., Parsaker, M., Sriharish, M. N., Henning, S., Menzel, M., Wießner, S., Das, A., Do, Q. K., Heinrich, G. & Radsch, H. J., 1 Nov 2015, In : *Express Polymer Letters*. 9, 11, p. 960-971 12 p.

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Submolecular Plasticization Induced by Photons in Azobenzene Materials

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Photomechanical Energy Transfer to Photopassive Polymers through Hydrogen and Halogen Bonds

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In Situ Photocontrol of Block Copolymer Morphology during Dip-Coating of Thin Films

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Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles

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Atomic-level characterization of transport cycle thermodynamics in the glycerol-3-phosphate: Phosphate antiporter

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

PIP2 and Talin Join Forces to Activate Integrin

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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

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Superatom Model for Ag-S Nanocluster with Delocalized Electrons

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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

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Measuring synthesis yield in graphene oxide synthesis by modified hummers method

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

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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

How large are nonadiabatic effects in atomic and diatomic systems?

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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

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

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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

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

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Responsive Polymer Photonics

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

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

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Quantifying non-ergodic dynamics of force-free granular gases

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

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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

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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

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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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Synthesis and Photophysical Properties of Two Diazaporphyrin-Porphyrin Hetero Dimers in Polar and Nonpolar Solutions

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

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

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

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La thérapie photodynamique: État de l'art et perspectives

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

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

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

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

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

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

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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

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

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

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

Oxidation of the GaAs semiconductor at the Al₂O₃/GaAs junction

Tuominen, M., Yasir, M., Lång, J., Dahl, J., Kuzmin, M., Mäkelä, J., Punkkinen, M., Laukkanen, P., Kokko, K., Schulte, K., Punkkinen, R., Korpijärvi, V.-M., Polojärvi, V. & Guina, M., 14 Mar 2015, In : *Physical Chemistry Chemical Physics*. 17, 10, p. 7060-7066 7 p.

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

New perspectives on proton pumping in cellular respiration

Wikström, M., Sharma, V., Kaila, V. R. I., Hosler, J. P. & Hummer, G., 11 Mar 2015, In : *Chemical Reviews*. 115, 5, p. 2196-2221 26 p.

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

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.

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

Resveratrol interferes with the aggregation of membrane-bound human-IAPP: A molecular dynamics study

Lolicato, F., Raudino, A., Milardi, D. & La Rosa, C., 6 Mar 2015, In : *European Journal of Medicinal Chemistry*. 92, p. 876-881 6 p.

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

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

Eshwaran, S. B., Basu, D., Vaikuntam, S. R., Kutlu, B., Wiessner, S., Das, A., Naskar, K. & Heinrich, G., 1 Mar 2015, In : *Journal of Applied Polymer Science*. 132, 9, 41539.

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

Neutralized chimeric avidin binding at a reference biosensor surface

Ray, S., Steven, R. T., Green, F. M., Höök, F., Taskinen, B., Hytönen, V. P. & Shard, A. G., 17 Feb 2015, In : *Langmuir*. 31, 6, p. 1921-1930 10 p.

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

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

Shin, J., Cherstvy, A. G. & Metzler, R., 17 Feb 2015, In : *ACS Macro Letters*. 4, 2, p. 202-206 5 p.

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

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

Fatarelle, E., Mylläri, V., Ruzzante, M., Pogni, R., Baratto, M. C., Skrifvars, M., Syrjälä, S. & Järvelä, P., 1 Feb 2015, In : *Journal of Applied Polymer Science*. 132, 8, 41509.

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

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

Saccone, M., Dichiarante, V., Forni, A., Goulet-Hanssens, A., Cavallo, G., Vapaavuori, J., Terraneo, G., Barrett, C. J., Resnati, G., Mentrangolo, P. & Priimägi, A., 28 Jan 2015, In : Journal of Materials Chemistry C. 3, p. 759-768 10 p.

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

Silver sulfide nanoclusters and the superatom model

Goh, J-Q., Malola, S., Häkkinen, H. & Akola, J., 22 Jan 2015, In : Journal of Physical Chemistry C. 119, 3, p. 1583-1590 8 p.

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

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

Shin, J., Cherstvy, A. G. & Metzler, R., 21 Jan 2015, In : Soft Matter. 11, 3, p. 472-488 17 p.

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

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

Ghosh, S. K., Cherstvy, A. G. & Metzler, R., 21 Jan 2015, In : Physical Chemistry Chemical Physics. 17, 3, p. 1847-1858 12 p.

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

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

Li, Z., Le, T., Wu, Z., Yao, Y., Li, L., Tentzeris, M., Moon, K. S. & Wong, C. P., 21 Jan 2015, In : Advanced Functional Materials. 25, 3, p. 464-470 7 p.

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

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

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.

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

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

Khan, M., Yang, J., Shi, C., Feng, Y., Zhang, W., Gibney, K. & Tew, G. N., 6 Jan 2015, In : RSC Advances. 5, 15, p. 11284-11292

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

A comparison of five optical surface topography measurement methods

Mettänen, M. & Hirn, U., 1 Jan 2015, In : TAPPI Journal. 14, 1, p. 27-38 12 p.

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

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

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

Yi, H., Albrecht, M., Valkonen, A. & Rissanen, K., 1 Jan 2015, In : New Journal of Chemistry. 39, 1, p. 746-749 4 p.

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

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

Reeta, P. S., Khetubol, A., Jella, T., Chukharev, V., Abou-Chahine, F., Tkachenko, N. V., Giribabu, L. & Lemmetyinen, H., 1 Jan 2015, In : Journal of Porphyrins and Phthalocyanines. 19, 1-3, p. 288-300 13 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

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

Borah, D., Rasappa, S., Senthamaraiannan, 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

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

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

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

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

Halogen-bonded photoresponsive materials

Saccone, M., Cavallo, G., Metrangolo, P., Resnati, G. & Priimägi, A., 2015, *Halogen Bonding II: Impact on Materials Chemistry and Life Sciences*. Springer International Publishing, p. 147-166 20 p. (Topics in Current Chemistry; vol. 359).

Research output: Chapter in Book/Report/Conference proceeding > Chapter > 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

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

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

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

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

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

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

Stimuli-responsive photonic polymer coatings

Stumpel, J. E., Broer, D. J. & Schenning, A. P. H. J., 28 Dec 2014, In : Chemical Communications. 50, 100, p. 15839-15848 10 p.

Research output: Contribution to journal > Review 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.

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

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.

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

A supramolecular approach to photoresponsive thermo/solvoplastic block copolymer elastomers

Wang, X., Vapaavuori, J., Zhao, Y. & Bazuin, C. G., 28 Oct 2014, In : Macromolecules. 47, 20, p. 7099-7108 10 p.

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

Goulet-Hanssens, A., Corkery, T. C., Priimagi, A. & Barrett, C. J., 28 Sep 2014, In : Journal of Materials Chemistry C. 2, 36, p. 7505-7512 8 p.

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.

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

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

Priimagi, A., Barrett, C. J. & Shishido, A., 21 Sep 2014, In : Journal of Materials Chemistry C. 2, 35, p. 7155-7162 8 p.

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

Kapgate, B. P., Das, C., Basu, D., Das, A., Heinrich, G. & Reuter, U., 5 Aug 2014, In : Journal of Applied Polymer Science. 131, 15, 40531.

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.

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

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

Kohagen, M., Mason, P. E. & Jungwirth, P., 17 Jul 2014, In : Journal of Physical Chemistry Part B. 118, 28, p. 7902-7909 8 p.

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

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.

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

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

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

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.

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

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

Raghuwanshi, S., Deswal, D., Karp, M. & Kuhad, R. C., 15 May 2014, In : Fuel. 124, p. 183-189 7 p.

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.

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

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

Kuzmin, M. G., Soboleva, I. V., Durandin, N. A., Lisitsyna, E. S. & Kuzmin, V. A., 17 Apr 2014, In : Journal of Physical Chemistry Part B. 118, 15, p. 4245-4252 8 p.

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.

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

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.

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

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

Kulig, W. & Agmon, N., 9 Jan 2014, In : *Journal of Physical Chemistry Part B*. 118, 1, p. 278-286 9 p.

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.

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

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

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. & Radsch, H. J., 2014, In : *Macromolecular Materials and Engineering*. 299, 5, p. 569-582 14 p.

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

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

Rasappa, S., Borah, D., Sentharamaikannan, R., Faulkner, C. C., Holmes, J. D. & Morris, M. A., 2014, In : *Journal Nanoscience and Nanotechnology*. 14, 7, p. 5221-5227 7 p.

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

Improving the effect of nanoscale barrier coating on BOPP film properties: Influence of substrate contamination, web handling and pretreatments

Lahti, J., Johansson, P., Lahtinen, K., Cameron, D. C. & Seppänen, T., 2014, *TAPPI PLACE Conference 2014*. TAPPI Press, Vol. 2. p. 1039-1061 23 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

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

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

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

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

pH-dependent deformations of the energy landscape of avidin-like proteins investigated by single molecule force spectroscopy

Köhler, M., Karner, A., Leitner, M., Hytönen, V. P., Kulomaa, M., Hinterdorfer, P. & Ebner, A., 2014, In : *Molecules*. 19, 8, p. 12531-12546 16 p.

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

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

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.

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

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

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

Diban, N., Haimi, S. P., Bolhuis-Versteeg, L., Teixeira, S., Miettinen, S., Poot, A. A., Grijpma, D. W. & Stamatialis, D., Dec 2013, In : *Macromolecular symposia*. 334, 1, p. 126-132 7 p.

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

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

Gebraad, A. W. H., Miettinen, S., Grijpma, D. W. & Haimi, S. P., Dec 2013, In : *Macromolecular symposia*. 334, 1, p. 49-56 8 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.

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

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

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.

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

Uhlig, F. & Jungwirth, P., Nov 2013, In : ZEITSCHRIFT FUR 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., Senthamarakannan, 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

Porphyrim 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.

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

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

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

Mechanisms of acceleration and retardation of water dynamics by ions

Stirnemann, G., Wernersson, E., Jungwirth, P. & Laage, D., 14 Aug 2013, In : Journal of the American Chemical Society. 135, 32, p. 11824-11831 8 p.

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Irradiation promoted exchange reaction with disulfide substituents

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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.

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

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., Tzamkiozis, 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.

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

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

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

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

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

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

Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group

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

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

Vapaavuori, J., Mahimwalla, Z., Chromik, R. R., Kaivola, M., Priimagi, A. & Barrett, C. J., 28 Apr 2013, In : Journal of Materials Chemistry C. 1, 16, p. 2806-2810 5 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

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

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

Pale, V., Nikkonen, T., Vapaavuori, J., Kostianen, M., Kavakka, J., Selin, J., Tittonen, I. & Helaja, J., 21 Mar 2013, In : Journal of Materials Chemistry C. 1, 11, p. 2166-2173 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

Ma, L., Wang, J. & Wang, G., 7 Mar 2013, In : Journal of Chemical Physics. 138, 9, 094304.
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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Research output: Contribution to journal > Article > Scientific > peer-review

Optical vortex generation in nematic liquid crystal light valves

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

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

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

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

Vazdar, M., Jungwirth, P. & Mason, P. E., 14 Feb 2013, In : Journal of Physical Chemistry Part B. 117, 6, p. 1844-1848 5 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

Farman, A. T., Hong, S. H., Caglayan, H., Ye, X., Diroll, B. T., Paik, T., Engheta, N., Murray, C. B. & Kagan, C. R., 13 Feb 2013, In : Nano Letters. 13, 2, p. 350-357 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

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

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

Ma, L., Wang, J., Hao, Y. & Wang, G., Feb 2013, In : Computational Materials Science. 68, p. 166-173 8 p.

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

Growth behavior and magnetic properties of spherical uranium oxide nanoclusters

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

Networking of ionic liquid modified CNTs in SSBR

Subramaniam, K., Das, A., Simon, F. & Heinrich, G., Feb 2013, In : European Polymer Journal. 49, 2, p. 345-352 8 p.

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

A 'clusters-in-liquid' method for calculating infrared spectra identifies the proton-transfer mode in acidic aqueous solutions

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

Improving the effect of a nanoscale barrier coating on BOPP film properties by surface pretreatments

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

Ylilauri, M., Mattila, E., Nurminen, E. M., Käpylä, J., Niinivehmas, S. P., Määttä, J. A., Pentikäinen, U., Ivaska, J. & Pentikäinen, O. T., 2013, In : Biochimica et biophysica acta: proteins and proteomics. 1834, 10, p. 1988-1997 10 p.

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

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

Mubarakali, D., Praveenkumar, R., Shenbagavalli, T., Mari Nivetha, T., Parveez Ahamed, A., Al-Dhabi, N. A. & Thajuddin, N., 28 Nov 2012, In : RSC Advances. 2, 30, p. 11552-11556 5 p.

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

Semiclassical hybrid approach to condensed phase molecular dynamics: Application to the I₂Kr₁₇ cluster

Buchholz, M., Goletz, C. M., Grossmann, F., Schmidt, B., Heyda, J. & Jungwirth, P., 26 Nov 2012, In : Journal of Physical Chemistry A. 116, 46, p. 11199-11210 12 p.

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

Peptide salt bridge stability: From gas phase via microhydration to bulk water simulations

Pluhařová, E., Marsalek, O., Schmidt, B. & Jungwirth, P., 14 Nov 2012, In : Journal of Chemical Physics. 137, 18, 185101.

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Search for global minimum geometries of medium sized Cd_nTe_n clusters (n = 15, 16, 20, 24 and 28)

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

Azobenzene photomechanics: Prospects and potential applications

Mahimwalla, Z., Yager, K. G., Mamiya, J. I., Shishido, A., Priimagi, A. & Barrett, C. J., Nov 2012, In : Polymer Bulletin. 69, 8, p. 967-1006 40 p.

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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

Superquenching of SYBRGreen dye fluorescence in complex with DNA by gold nanoparticles

Lisitsyna, E. S., Lygo, O. N., Durandin, N. A., Dement'eva, O. V., Rudoi, V. M. & Kuzmin, V. A., Nov 2012, In : HIGH ENERGY CHEMISTRY. 46, 6, p. 363-367 5 p.

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

Fabrication of ssDNA/oligo(ethylene glycol) monolayers and complex nanostructures by an irradiation-promoted exchange reaction

Khan, M. N., Tjong, V., Chilkoti, A. & Zharnikov, M., 8 Oct 2012, In : Angewandte Chemie (International Edition). 51, 41, p. 10303-10306 4 p.

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Biomimetic surface modification of polycarbonateurethane film via phosphorylcholine-graft for resisting platelet adhesion

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

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

Le, H. H., Hoang, X. T., Das, A., Gohs, U., Stoeckelhuber, K. W., Boldt, R., Heinrich, G., Adhikari, R. & Radusch, H. J., Oct 2012, In : Carbon. 50, 12, p. 4543-4556 14 p.

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

Bardhan, J. P., Jungwirth, P. & Makowski, L., 28 Sep 2012, In : Journal of Chemical Physics. 137, 12, 124101.

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

Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends

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

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

Accurate description of aqueous carbonate ions: An effective polarization model verified by neutron scattering

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

Nematicons in azobenzene liquid crystals

Serak, S. V., Tabiryani, N. V. & Assanto, G., 19 Jul 2012, In : *Molecular Crystals and Liquid Crystals*. 559, p. 202-213 12 p.
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Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers

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Molecular mechanisms of ion-specific effects on proteins

Rembert, K. B., Paterová, J., Heyda, J., Hilty, C., Jungwirth, P. & Cremer, P. S., 20 Jun 2012, In : *Journal of the American Chemical Society*. 134, 24, p. 10039-10046 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Behavior of 4-hydroxynonenal in phospholipid membranes

Vazdar, M., Jurkiewicz, P., Hof, M., Jungwirth, P. & Cwiklik, L., 7 Jun 2012, In : *Journal of Physical Chemistry Part B*. 116, 22, p. 6411-6415 5 p.
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Elemental and mixed actinide dioxides: An ab initio study

Ma, L., Atta-Fynn, R. & Ray, A. K., Jun 2012, In : *Journal of Theoretical and Computational Chemistry*. 11, 3, p. 611-629 19 p.
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Structural characteristics and flammability of fire retarding EPDM/layered double hydroxide (LDH) nanocomposites

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

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

Rooj, S., Das, A., Stöckelhuber, K. W., Reuter, U. & Heinrich, G., Apr 2012, In : *Macromolecular Materials and Engineering*. 297, 4, p. 369-383 15 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

Stradomska, A., Kulig, W., Slawik, M. & Petelenz, P., 9 Mar 2012, In : *Chemical Physics Letters*. 529, p. 27-30 4 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

Das, A., George, J. J., Kutlu, B., Leuteritz, A., Wang, D. Y., Rooj, S., Jurk, R., Rajeshbabu, R., Stöckelhuber, K. W., Galiatsatos, V. & Heinrich, G., 27 Feb 2012, In : *Macromolecular Rapid Communications*. 33, 4, p. 337-342 6 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Glycerol mediated synthesis of 5-substituted 1H-tetrazole under catalyst free conditions

Nandre, K. P., Salunke, J. K., Nandre, J. P., Patil, V. S., Borse, A. U. & Bhosale, S. V., Feb 2012, In : *Chinese Chemical Letters*. 23, 2, p. 161-164 4 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

Koskela, J. E., Vapaavuori, J., Hautala, J., Priimagi, A., Faul, C. F. J., Kaivola, M. & Ras, R. H. A., 26 Jan 2012, In : *Journal of Physical Chemistry C*. 116, 3, p. 2363-2370 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Structure, dynamics, and reactivity of hydrated electrons by Ab initio molecular dynamics

Marsalek, O., Uhlig, F., Vandevondele, J. & Jungwirth, P., 17 Jan 2012, In : *Accounts of Chemical Research*. 45, 1, p. 23-32 10 p.

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

Conductive layers on surface modified natural fibre based substrates for printed functionality

Valtakari, D., Bollström, R., Tuominen, M., Teisala, H., Aromaa, M., Toivakka, M., Kuusipalo, J., Mäkelä, J. M., Uozumi, J. & Saarinen, J. J., 2012, *AICHE 2012 - 2012 AIChE Annual Meeting, Conference Proceedings*.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

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

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

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

Priimagi, A., Shimamura, A., Kondo, M., Hiraoka, T., Kubo, S., Mamiya, J. I., Kinoshita, M., Ikeda, T. & Shishido, A., 2012, In : *ACS Macro Letters*. 1, 1, p. 96-99 4 p.

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

Modification of olivomycin A at the side chain of the aglycon yields the derivative with perspective antitumor characteristics

Tevyashova, A. N., Shtil, A. A., Olsufyeva, E. N., Luzikov, Y. N., Reznikova, M. I., Dezhenkova, L. G., Isakova, E. B., Bukhman, V. M., Durandin, N. A., Vinogradov, A. M., Kuzmin, V. A. & Preobrazhenskaya, M. N., 15 Dec 2011, In : *BIOORGANIC AND MEDICINAL CHEMISTRY*. 19, 24, p. 7387-7393 7 p.

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

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Marsalek, O., Elles, C. G., Pieniazek, P. A., Pluhaov, E., Vandevondele, J., Bradforth, S. E. & Jungwirth, P., 14 Dec 2011, In : *Journal of Chemical Physics*. 135, 22, 224510.

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

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.

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

Cholesterol driven alteration of the conformation and dynamics of phospholamban in model membranes

Manna, M. & Mukhopadhyay, C., 7 Dec 2011, In : *Physical Chemistry Chemical Physics*. 13, 45, p. 20188-20198 11 p.

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

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

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

Arrhenius analysis of anisotropic surface self-diffusion on the prismatic facet of ice

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

Detection and verification of glycosylation patterns of glycoproteins from clinical specimens using lectin microarrays and lectin-based immunosorbent assays

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

Orientational dependence of the affinity of guanidinium ions to the water surface

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

Efficient surface structuring and photoalignment of supramolecular polymer-azobenzene complexes through rational chromophore design

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Quantitative glycoproteomic analysis of optimal cutting temperature-embedded frozen tissues identifying glycoproteins associated with aggressive prostate cancer

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Tube-like natural halloysite/fluoroelastomer nanocomposites with simultaneous enhanced mechanical, dynamic mechanical and thermal properties

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Towards universal enrichment nanocoating for IR-ATR waveguides

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From a localized H₃O radical to a delocalized H₃O⁺⋯e⁻ solvent-separated pair by sequential hydration

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Internal structure, hygroscopic and reactive properties of mixed sodium methanesulfonate-sodium chloride particles

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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

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Effect of pre-treatments on barrier properties of layers applied by atomic layer deposition onto polymer-coated substrates

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Enrichment polymer layers for detection of volatile vapors by ATR FT-IR

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