

**Direct measurement of the kinetic energy shift between the molecular and atomic M4.5N4.5N4.5 Auger spectra of iodine.** / Rantala, T.; Väyrynen, J.; Kumpula, R.; Aksela, S.  
In: Chemical Physics Letters, Vol. 66, No. 2, 01.10.1979, p. 384-386.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Anomalous Auger-electron spectra of metallic calcium.** / Väyrynen, J.; Rantala, T. T.; Minni, E.; Suoninen, E.  
In: Journal of Electron Spectroscopy and Related Phenomena, Vol. 31, No. 3, 1983, p. 293-305.  
Research output: Contribution to journal › Article › Scientific › peer-review

**A finite cluster approach to the electron-hole pair damping of the adsorbate vibration : CO adsorbed on Cu(100).** / Rantala, T. T.; Rosén, A.; Helsing, B.  
In: Journal of Electron Spectroscopy and Related Phenomena, Vol. 39, No. C, 1986, p. 173-181.  
Research output: Contribution to journal › Article › Scientific › peer-review

**A Finite Cluster Approach to the Electron-Hole Pair Damping of the Adsorbate Vibration : CO Adsorbed on Cu(100).** / Rantala, T. T.; Rosén, A.; Helsing, B.  
In: Studies in Surface Science and Catalysis, Vol. 26, No. C, 1986, p. 173-181.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Potential energy curves for diatomic molecules calculated with numerical basis functions.** / Rantala, Tapio T.; Wästberg, Bo; Rosén, Arne.  
In: Chemical Physics, Vol. 109, No. 2-3, 15.11.1986, p. 261-268.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Numerical simulation of temperature distributions in layered structures during laser processing.** / Levoska, J.; Rantala, T. T.; Lenkkeri, J.  
In: Applied Surface Science, Vol. 36, No. 1-4, 1989, p. 12-22.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Sorption and retention of ethylene glycol monoethyl ether (EGME) on silicas.** / Kellomäki, Aarre; Kuula-Väisänen, Pirjo; Nieminen, Pertti.  
In: Journal of Colloid and Interface Science, Vol. 129, No. 2, 1989, p. 373-378.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Morphological and structural changes in laser CVD of silicon : comparison of theoretical temperature calculations with experimental results.** / Milne, D.; Wilson, J. I B; Rantala, T. T.; Lenkkeri, J.  
In: Applied Surface Science, Vol. 43, No. 1-4, 02.12.1989, p. 81-86.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Electronic and structural properties of Si<sub>10</sub> cluster.** / Rantala, Tapio T.; Jelski, Daniel A.; George, Thomas F.  
In: Journal of Cluster Science, Vol. 1, No. 2, 06.1990, p. 189-200.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Rate equation simulation of the height of Schottky barriers at the surface of oxidic semiconductors.** / Rantala, T. S.; Lantto, V.; Rantala, T. T.  
In: Sensors and Actuators B: Chemical, Vol. 13, No. 1-3, 1993, p. 234-237.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Melting of copper clusters.** / Valkealahti, S.; Manninen, M.  
In: Computational Materials Science, Vol. 1, No. 2, 01.01.1993, p. 123-134.  
Research output: Contribution to journal › Article › Scientific › peer-review

**A cluster approach for the SnO<sub>2</sub> (110) face.** / Rantala, T. S.; Lantto, V.; Rantala, T. T.  
In: Sensors and Actuators B: Chemical, Vol. 19, No. 1-3, 1994, p. 716-719.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Si10 and photoabsorption spectra of mid-sized silicon clusters.** / Rantala, Tapio T.; Jelski, Daniel A.; George, Thomas F.  
In: Chemical Physics Letters, Vol. 232, No. 3, 13.01.1995, p. 215-220.

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

**Synthesis of chlorinated 5-hydroxy 4-methyl-2(5H)-furanones and mucochloric acid.** / Franzén, Robert; Kronberg, Leif.  
In: Tetrahedron Letters, Vol. 36, No. 22, 29.05.1995, p. 3905-3908.

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

**Effects of two double bonds on the hydrocarbon interior of a phospholipid bilayer.** / Hyvönen, Marja; Ala-Korpela, Mika; Vaara, Juha; Rantala, Tapio T.; Jokisaari, Jukka.

In: Chemical Physics Letters, Vol. 246, No. 3, 24.11.1995, p. 300-306.

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

**Mutational spectra of Salmonella typhimurium revertants induced by chlorohydroxyfuranones, byproducts of chlorine disinfection of drinking water.** / Knasmüller, Siegfried; Zöhrer, Edith; Kronberg, Leif; Kundi, Michael; Franzen, Robert; Schulte-Hermann, Rolf.

In: Chemical Research in Toxicology, Vol. 9, No. 2, 1996, p. 374-381.

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

**Surface relaxation of the (1010) face of wurtzite CdS.** / Rantala, Tapio T.; Rantala, Tuomo S.; Lantto, Vilho; Vaara, Juha.  
In: Surface Science, Vol. 352-354, 15.05.1996, p. 77-82.

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

**Melting and evaporation of argon clusters.** / Rytönen, A.; Valkealahti, S.; Manninen, M.

In: Journal of Chemical Physics, Vol. 106, No. 5, 01.02.1997, p. 1888-1892.

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

**Start-up and Operation of Laboratory-Scale Thermophilic Upflow Anaerobic Sludge Blanket Reactors Treating Vegetable Processing Wastewaters.** / Lepistö, Satu S.; Rintala, Jukka A.

In: Journal of Chemical Technology and Biotechnology, Vol. 68, No. 3, 03.1997, p. 331-339.

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

**Inequivalence of single CH<sub>a</sub> and CH<sub>b</sub> methylene bonds in the interior of a diunsaturated lipid bilayer from a molecular dynamics simulation.** / Hyvönen, Marja; Ala-Korpela, Mika; Vaara, Juha; Rantala, Tapio T.; Jokisaari, Jukka.

In: Chemical Physics Letters, Vol. 268, No. 1-2, 04.04.1997, p. 55-60.

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

**Calculation of the molecular ordering parameters of (±)-3-butyn-2-ol dissolved in an organic solution of poly(γ-benzyl-L-glutamate).** / Lesot, Philippe; Merlet, Denis; Courtieu, Jacques; Emsley, James W.; Rantala, Tapio T.; Jokisaari, Jukka.

In: Journal of Physical Chemistry A, Vol. 101, No. 31, 31.07.1997, p. 5719-5724.

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

**Investigation of the adducts formed by reaction of butenedioic acids with adenosine.** / Franzén, Robert; Morita, Masatoshi; Tanabe, Kiyoshi; Takagi, Hiroo; Shibata, Yasuyuki.

In: Chemical Research in Toxicology, Vol. 10, No. 10, 10.1997, p. 1186-1191.

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

**Computational approaches to the chemical sensitivity of semiconducting tin dioxide.** / Rantala, Tuomo; Lantto, Vilho; Rantala, Tapio.

In: Sensors and Actuators B: Chemical, Vol. 47, No. 1-3, 01.01.1998, p. 59-64.

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

**Effect of nitro groups and alkyl chain length on the negative ion tandem mass spectra of alkyl 3-hydroxy-5-(4'-nitrophenoxy) and alkyl 3-hydroxy-5-(2', 4'-dinitrophenoxy) benzoates.** / Kangas, Heli; Franzén, Robert; Tois, Jan; Taskinen, Jyrki; Kostainen, Risto.

In: Rapid Communications in Mass Spectrometry, Vol. 13, No. 16, 1999, p. 1680-1684.

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

**Surface relaxation of the (110) face of rutile SnO<sub>2</sub>.** / Rantala, Tapio T.; Rantala, Tuomo S.; Lantto, Vilho.

In: Surface Science, Vol. 420, No. 1, 11.01.1999, p. 103-109.

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

**Experimental and theoretical study of the spin-spin coupling tensors in methylsilane.** / Kaski, Jaakko; Lantto, Perttu; Rantala, Tapio T.; Schroderus, Jyrki; Vaara, Juha; Jokisaari, Jukka.

In: Journal of Physical Chemistry A, Vol. 103, No. 48, 02.12.1999, p. 9669-9677.

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

**The Suzuki, the Heck, and the Stille reaction - Three versatile methods, for the introduction of new C-C bonds on solid support.** / Franzén, R.

In: Canadian Journal of Chemistry - Revue Canadienne de Chimie, Vol. 78, No. 7, 2000, p. 957-962.

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

**Utilization of Grignard reagents in solid-phase synthesis : A review of the literature.** / Franzén, Robert G.

In: Tetrahedron, Vol. 56, No. 5, 28.01.2000, p. 685-691.

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

**Preparation of 5-substituted 2-carboxyindoles on solid support.** / Tois, Jan; Franzén, Robert; Aitio, Olli; Huikko, Katri; Taskinen, Jyrki.

In: Tetrahedron Letters, Vol. 41, No. 14, 01.04.2000, p. 2443-2446.

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

**Recent advances in the preparation of heterocycles on solid support : A review of the literature.** / Franzén, Robert G.

In: Journal of Combinatorial Chemistry, Vol. 2, No. 3, 05.2000, p. 195-214.

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

**Computational studies for the interpretation of gas response of SnO<sub>2</sub>(110) surface.** / Rantala, Tuomo S.; Rantala, Tapio T.; Lantto, Vilho.

In: Sensors and Actuators B: Chemical, Vol. 65, No. 1, 30.06.2000, p. 375-378.

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

**Solid-phase bromination and Suzuki coupling of 2-carboxyindoles.** / Tois, J.; Franzén, R.; Aitio, O.; Laakso, I.; Huuskonen, J.; Taskinen, J.

In: Combinatorial Chemistry and High Throughput Screening, Vol. 4, No. 6, 2001, p. 521-524.

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

**Vilsmeier formylation of 2-carboxyindoles and preparation of O-benzylhydroxyureas on solid phase.** / Tois, Jan; Franzén, Robert; Aitio, Olli; Laakso, Into; Kylänlahti, Irene.

In: Journal of Combinatorial Chemistry, Vol. 3, No. 6, 11.2001, p. 542-545.

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

**Control of matrix interferences by the multiple linear regression model in the determination of arsenic, antimony and tin in lead pellets by inductively coupled plasma atomic emission spectrometry.** / Väisänen, Ari; Suontamo, Reijo; Rintala, Jukka

In: Journal of Analytical Atomic Spectrometry, Vol. 17, No. 3, 2002, p. 274-276.

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

**Ultrasound-assisted extraction in the determination of arsenic, cadmium, copper, lead, and silver in contaminated soil samples by inductively coupled plasma atomic emission spectrometry.** / Väisänen, Ari; Suontamo, Reijo; Silvonen, Janne; Rintala, Jukka.

In: Analytical and Bioanalytical Chemistry, Vol. 373, No. 1-2, 2002, p. 93-97.

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

**Statistical modeling of water vapor transmission rates for extrusion-coated papers.** / Lahtinen, Kimmo; Kuusipalo, Jurkka.  
TAPPI 2008 PLACE Conference: Innovations in Flexible Consumer Packaging. 2008.

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

**Batch dark fermentative hydrogen production from grass silage : The effect of inoculum, pH, temperature and VS ratio.** / Pakarinen, Outi; Lehtomäki, Anni; Rintala, Jukka.

In: International Journal of Hydrogen Energy, Vol. 33, No. 2, 01.2008, p. 594-601.

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

**The structural information content of chemical networks.** / Dehmer, Matthias; Emmert-Streib, Frank.

In: Zeitschrift für Naturforschung Section A: A Journal of Physical Sciences, Vol. 63, No. 3-4, 03.2008, p. 155-158.

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

**Structural information content of networks : Graph entropy based on local vertex functionals.** / Dehmer, Matthias; Emmert-Streib, Frank.

In: Computational Biology and Chemistry, Vol. 32, No. 2, 04.2008, p. 131-138.

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

**The effects of corona and flame treatment : Part 2. PE-HD and PP coated papers.** / Lahti, Johanna; Tuominen, Mikko; Penttinen, Tapani; Räsänen, Jari P.; Kuusipalo, Jurkka.

TAPPI Press - 12th European PLACE Conference 2009. Vol. 1 2009. p. 278-314.

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

**On entropy-based molecular descriptors : Statistical analysis of real and synthetic chemical structures.** / Dehmer, Matthias; Varmuza, Kurt; Borgert, Stephan; Emmert-Streib, Frank.

In: Journal of Chemical Information and Modeling, Vol. 49, No. 7, 27.07.2009, p. 1655-1663.

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

**Efficient production of NV colour centres in nanodiamonds using high-energy electron irradiation.** / Dantelle, G.; Slablab, A.; Rondin, L.; Lainé, F.; Carrel, F.; Bergonzo, Ph.; Perruchas, S.; Gacoin, T.; Treussart, F.; Roch, J. F.

In: Journal of Luminescence, Vol. 130, No. 9, 09.2010, p. 1655-1658.

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

**An electro-optically tunable Bragg reflector based on liquid crystals.** / Gilardi, G.; Asquini, R.; D'Alessandro, A.; Assanto, G.

In: Molecular Crystals and Liquid Crystals, Vol. 549, 2011, p. 62-68.

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

**Effect of pre-treatments on barrier properties of layers applied by atomic layer deposition onto polymer-coated substrates.** / Vähä-Nissi, M.; Hirvikorpi, T.; Sievänen, J.; Salo, E.; Harlin, A.; Johansson, P.; Kuusipalo, J.

13th European PLACE Conference 2011. Vol. 1 2011. p. 447.

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

**Enrichment polymer layers for detection of volatile vapors by ATR FT-IR.** / Giammarco, James M.; Zdyrko, Bogdan; Hu, Juejun; Agarwal, Anu; Kimerling, Lionel; Carlie, Nathan; Petit, Laetitia; Richardson, Kathleen; Luzinov, Igor.

In: ACS National Meeting Book of Abstracts, 2011.

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

**Interactions of molecular ions with model phospholipid membranes.** / Petrov, Michal; Cwiklik, Lukasz; Jungwirth, Pavel.

In: Collection of Czechoslovak Chemical Communications, Vol. 76, No. 6, 2011, p. 695-711.

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

**Nanoparticle deposition on packaging materials by the liquid flame spray.** / Teisala, Hannu; Tuominen, Mikko; Aromaa, Mikko; Mäkelä, Jyrki M.; Stepien, Milena; Saarinen, Jarkko J.; Toivakka, Martti; Kuusipalo, Jurkka.

13th European PLACE Conference 2011. Vol. 1 2011.

**Quantifying structural complexity of graphs : Information measures in mathematical chemistry.** / Dehmer, Matthias; Emmert-Streib, Frank; Tsoy, Yury Robertovich; Varmuza, Kurt.  
Quantum Frontiers of Atoms and Molecules. ed. / Mihai V. Putz. Nova Science Publishers, Inc., 2011. p. 479-497.  
Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

**Site-specific polarizabilities as predictors of favorable adsorption sites on Nan clusters.** / Ma, Li; Jackson, Koblar Alan; Jellinek, Julius.  
In: Chemical Physics Letters, Vol. 503, No. 1-3, 08.02.2011, p. 80-85.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Ionization of purine tautomers in nucleobases, nucleosides, and nucleotides : From the gas phase to the aqueous environment.** / Pluhařová, Eva; Jungwirth, Pavel; Bradforth, Stephen E.; Slaviček, Petr.  
In: Journal of Physical Chemistry Part B, Vol. 115, No. 5, 10.02.2011, p. 1294-1305.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Molecular dynamics simulations of the interactions of kinin peptides with an anionic POPG bilayer.** / Manna, Moutusi; Mukhopadhyay, Chaitali.  
In: Langmuir, Vol. 27, No. 7, 05.04.2011, p. 3713-3722.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Energetic origin of proton affinity to the air/water interface.** / Takahashi, Hideaki; Maruyama, Kunihiro; Karino, Yasuhito; Morita, Akihiro; Nakano, Masayoshi; Jungwirth, Pavel; Matubayasi, Nobuyuki.  
In: Journal of Physical Chemistry Part B, Vol. 115, No. 16, 28.04.2011, p. 4745-4751.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Detection of DNA hybridisation in a diluted serum matrix by surface plasmon resonance and film bulk acoustic resonators.** / Auer, Sanna; Nirschl, Martin; Schreiter, Matthias; Vikholm-Lundin, Inger.  
In: Analytical and Bioanalytical Chemistry, Vol. 400, No. 5, 05.2011, p. 1387-1396.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Preparation of zinc oxide free, transparent rubber nanocomposites using a layered double hydroxide filler.** / Das, Amit; Wang, De Yi; Leuteritz, Andreas; Subramaniam, Kalaivani; Greenwell, H. Chris; Wagenknecht, Udo; Heinrich, Gert.  
In: Journal of Materials Chemistry, Vol. 21, No. 20, 28.05.2011, p. 7194-7200.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Behavior of the eigen form of hydronium at the air/water interface.** / Jagoda-Cwiklik, Barbara; Cwiklik, Lukasz; Jungwirth, Pavel.  
In: Journal of Physical Chemistry A, Vol. 115, No. 23, 16.06.2011, p. 5881-5886.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Behavior of  $\beta$ -amyloid 1-16 at the air-water interface at varying pH by nonlinear spectroscopy and molecular dynamics simulations.** / Miller, Abigail E.; Petersen, Poul B.; Hollars, Christopher W.; Saykally, Richard J.; Heyda, Jan; Jungwirth, Pavel.  
In: Journal of Physical Chemistry A, Vol. 115, No. 23, 16.06.2011, p. 5873-5880.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Steric and electronic effects in the host-guest hydrogen bonding in clathrate hydrates.** / Kulig, Waldemar; Kubisiak, Piotr; Cwiklik, Lukasz.  
In: Journal of Physical Chemistry A, Vol. 115, No. 23, 16.06.2011, p. 6149-6154.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Internal structure, hygroscopic and reactive properties of mixed sodium methanesulfonate-sodium chloride particles.** / Liu, Y.; Minofar, B.; Desyaterik, Y.; Dames, E.; Zhu, Z.; Cain, J. P.; Hopkins, R. J.; Gilles, M. K.; Wang, H.; Jungwirth, P.; Laskin, A.

In: Physical Chemistry Chemical Physics, Vol. 13, No. 25, 07.07.2011, p. 11846-11857.

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

**Defined-size DNA triple crossover construct for molecular electronics : Modification, positioning and conductance properties.** / Linko, Veikko; Leppiniemi, Jenni; Paasonen, Seppo Tapio; Hytönen, Vesa P.; Jussi Toppari, J.

In: Nanotechnology, Vol. 22, No. 27, 275610, 08.07.2011.

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

**Urea and guanidinium induced denaturation of a Trp-cage miniprotein.** / Heyda, Jan; Kožíšek, Milan; Bednárova, Lucie; Thompson, Gary; Konvalinka, Jan; Vondrášek, Jiří; Jungwirth, Pavel.

In: Journal of Physical Chemistry Part B, Vol. 115, No. 28, 21.07.2011, p. 8910-8924.

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

**Machine learning : How it can help nanocomputing.** / Uusitalo, Mikko A.; Peltonen, Jaakko; Ryhänen, Tapani.

In: Journal of Computational and Theoretical Nanoscience, Vol. 8, No. 8, 08.2011, p. 1347-1363.

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

**From a localized H<sub>3</sub>O radical to a delocalized H<sub>3</sub>O<sup>+</sup>···e<sup>-</sup> solvent-separated pair by sequential hydration.** / Uhlig, Frank; Marsalek, Ondrej; Jungwirth, Pavel.

In: Physical Chemistry Chemical Physics, Vol. 13, No. 31, 21.08.2011, p. 14003-14009.

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

**Towards universal enrichment nanocoating for IR-ATR waveguides.** / Giammarco, James; Zdyrko, Bogdan; Petit, Laetitia; Musgraves, J. David; Hu, Juejun; Agarwal, Anu; Kimerling, Lionel; Richardson, Kathleen; Luzinov, Igor.

In: Chemical Communications, Vol. 47, No. 32, 28.08.2011, p. 9104-9106.

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

**Tube-like natural halloysite/fluoroelastomer nanocomposites with simultaneous enhanced mechanical, dynamic mechanical and thermal properties.** / Rooj, Sandip; Das, Amit; Heinrich, Gert.

In: European Polymer Journal, Vol. 47, No. 9, 09.2011, p. 1746-1755.

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

**Quantitative glycoproteomic analysis of optimal cutting temperature-embedded frozen tissues identifying glycoproteins associated with aggressive prostate cancer.** / Tian, Yuan; Bova, G. Steven; Zhang, Hui.

In: Analytical Chemistry, Vol. 83, No. 18, 15.09.2011, p. 7013-7019.

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

**Versatile bio-ink for covalent immobilization of chimeric avidin on sol-gel substrates.** / Heikkinen, Jarkko J.; Kivimäki, Liisa; Määttä, Juha A E; Mäkelä, Inka; Hakalahti, Leena; Takkinen, Kristiina; Kulomaa, Markku S.; Hytönen, Vesa P.; Hormi, Osmo E O.

In: Colloids and Surfaces B: Biointerfaces, Vol. 87, No. 2, 15.10.2011, p. 409-414.

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

**Like-charge guanidinium pairing from molecular dynamics and ab initio calculations.** / Vazdar, Mario; Vymětal, Jiří; Heyda, Jan; Vondrášek, Jiří; Jungwirth, Pavel.

In: Journal of Physical Chemistry A, Vol. 115, No. 41, 20.10.2011, p. 11193-11201.

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

**Efficient surface structuring and photoalignment of supramolecular polymer-azobenzene complexes through rational chromophore design.** / Vapaavuori, Jaana; Valtavirta, Ville; Alasaarela, Tapani; Mamiya, Jun Ichi; Priimagi, Arri; Shishido, Atsushi; Kaivola, Matti.

In: Journal of Materials Chemistry, Vol. 21, No. 39, 21.10.2011, p. 15437-15441.

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

**The effect of lipid oxidation on the water permeability of phospholipids bilayers.** / Lis, Mateusz; Wizert, Alicja; Przybyło, Magda; Langner, Marek; Swiatek, Jerzy; Jungwirth, Pavel; Cwiklik, Lukasz.

In: Physical Chemistry Chemical Physics, Vol. 13, No. 39, 21.10.2011, p. 17555-17563.

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

**Orientalional dependence of the affinity of guanidinium ions to the water surface.** / Wernersson, Erik; Heyda, Jan; Vazdar, Mario; Lund, Mikael; Mason, Philip E.; Jungwirth, Pavel.

In: Journal of Physical Chemistry Part B, Vol. 115, No. 43, 03.11.2011, p. 12521-12526.

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.** / Li, Yan; Tao, Sheng Ce; Bova, G. Steven; Liu, Alvin Y.; Chan, Daniel W.; Zhu, Heng; Zhang, Hui.

In: Analytical Chemistry, Vol. 83, No. 22, 15.11.2011, p. 8509-8516.

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

**Arrhenius analysis of anisotropic surface self-diffusion on the prismatic facet of ice.** / Gladich, Ivan; Pfalzgraff, William; Maršálek, Ondřej; Jungwirth, Pavel; Roeselová, Martina; Neshyba, Steven.

In: Physical Chemistry Chemical Physics, Vol. 13, No. 44, 28.11.2011, p. 19960-19969.

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.** / Subramaniam, Kalaivani; Das, Amit; Steinhäuser, Dagmar; Klüppel, Manfred; Heinrich, Gert.

In: European Polymer Journal, Vol. 47, No. 12, 12.2011, p. 2234-2243.

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

**Cholesterol driven alteration of the conformation and dynamics of phospholamban in model membranes.** / Manna, Moutusi; Mukhopadhyay, Chaitali.

In: Physical Chemistry Chemical Physics, Vol. 13, No. 45, 07.12.2011, p. 20188-20198.

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

**The Discovery of Compounds That Stimulate the Activity of Kallikrein-Related Peptidase3 (KLK3).** / Härkönen, Henna H.; Mattsson, Johanna M.; Määttä, Juha A E; Stenman, Ulf Håkan; Koistinen, Hannu; Matero, Sanni; Windshügel, Björn; Poso, Antti; Lahtela-Kakkonen, Maija.

In: CHEMMEDCHEM, Vol. 6, No. 12, 09.12.2011, p. 2170-2178.

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

**Chasing charge localization and chemical reactivity following photoionization in liquid water.** / Marsalek, Ondrej; Elles, Christopher G.; Pieniazek, Piotr A.; Pluhaov, Eva; Vandevondele, Joost; Bradforth, Stephen E.; Jungwirth, Pavel.

In: Journal of Chemical Physics, Vol. 135, No. 22, 224510, 14.12.2011.

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, Anna N.; Shtil, Alexander A.; Olsufyeva, Eugenia N.; Luzikov, Yury N.; Reznikova, Marina I.; Dezhenkova, Lyubov G.; Isakova, Elena B.; Bukhman, Vladimir M.; Durandin, Nikita A.; Vinogradov, Alexander M.; Kuzmin, Vladimir A.; Preobrazhenskaya, Maria N.

In: BIOORGANIC AND MEDICINAL CHEMISTRY, Vol. 19, No. 24, 15.12.2011, p. 7387-7393.

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

**Conductive layers on surface modified natural fibre based substrates for printed functionality.** / Valtakari, Dimitar; Bollström, Roger; Tuominen, Mikko; Teisala, Hannu; Aromaa, Mikko; Toivakka, Martti; Kuusipalo, Jurkka; Mäkelä, Jyrki M.; Uozumi, Jun; Saarinen, Jarkko J.

AICHe 2012 - 2012 AICHe Annual Meeting, Conference Proceedings. 2012.

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

**Layered Double Hydroxides (LDH) : A multifunctional versatile system for nanocomposites.** / Leuteritz, A.; Kutlu, B.; Meinl, J.; Wang, D.; Das, A.; Wagenknecht, U.; Heinrich, G.

In: Molecular Crystals and Liquid Crystals, Vol. 556, 2012, p. 107-113.

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, Arri; Shimamura, Aki; Kondo, Mizuho; Hiraoka, Tomohiro; Kubo, Shoichi; Mamiya, Jun Ichi; Kinoshita, Motoi; Ikeda, Tomiki; Shishido, Atsushi.

In: ACS Macro Letters, Vol. 1, No. 1, 2012, p. 96-99.

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

**Structure, dynamics, and reactivity of hydrated electrons by Ab initio molecular dynamics.** / Marsalek, Ondrej; Uhlig, Frank; Vandevondele, Joost; Jungwirth, Pavel.

In: Accounts of Chemical Research, Vol. 45, No. 1, 17.01.2012, p. 23-32.

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, Jenni E.; Vapaavuori, Jaana; Hautala, Juho; Priimagi, Arri; Faul, Charl F J; Kaivola, Matti; Ras, Robin H A.

In: Journal of Physical Chemistry C, Vol. 116, No. 3, 26.01.2012, p. 2363-2370.

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

**Glycerol mediated synthesis of 5-substituted 1H-tetrazole under catalyst free conditions.** / Nandre, Kamalakar P.; Salunke, Jagdish K.; Nandre, Jitendra P.; Patil, Vijay S.; Borse, Amul U.; Bhosale, Sidhanath V.

In: Chinese Chemical Letters, Vol. 23, No. 2, 02.2012, p. 161-164.

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

**A novel thermotropic elastomer based on highly-filled LDH-SSB composites.** / Das, Amit; George, Jinu Jacob; Kutlu, Burak; Leuteritz, Andreas; Wang, De Yi; Rooj, Sandip; Jurk, René; Rajeshbabu, Ramanujam; Stöckelhuber, Klaus Werner; Galiatsatos, Vassilios; Heinrich, Gert.

In: Macromolecular Rapid Communications, Vol. 33, No. 4, 27.02.2012, p. 337-342.

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

**Excited-state polarizability in crystalline sexithiophene : Charge-transfer and vibronic effects.** / Stradomska, Anna; Kulig, Waldemar; Slawik, Michał; Petelenz, Piotr.

In: Chemical Physics Letters, Vol. 529, 09.03.2012, p. 27-30.

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, Sandip; Das, Amit; Stöckelhuber, Klaus Werner; Reuter, Uta; Heinrich, Gert.

In: Macromolecular Materials and Engineering, Vol. 297, No. 4, 04.2012, p. 369-383.

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

**Structural characteristics and flammability of fire retarding EPDM/layered double hydroxide (LDH) nanocomposites.** / Wang, De Yi; Das, Amit; Leuteritz, Andreas; Mahaling, R. N.; Jehnichen, Dieter; Wagenknecht, Udo; Heinrich, Gert.

In: RSC Advances, Vol. 2, No. 9, 21.04.2012, p. 3927-3933.

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

**Elemental and mixed actinide dioxides : An ab initio study.** / Ma, Li; Atta-Fynn, Raymond; Ray, Asok K.

In: Journal of Theoretical and Computational Chemistry, Vol. 11, No. 3, 06.2012, p. 611-629.

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

**Behavior of 4-hydroxynonenal in phospholipid membranes.** / Vazdar, Mario; Jurkiewicz, Piotr; Hof, Martin; Jungwirth, Pavel; Cwiklik, Lukasz.

In: Journal of Physical Chemistry Part B, Vol. 116, No. 22, 07.06.2012, p. 6411-6415.

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

**Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers.** / Priimagi, Arri; Cavallo, Gabriella; Forni, Alessandra; Gorynsztein-Leben, Mikael; Kaivola, Matti; Metrangolo, Pierangelo; Milani, Roberto; Shishido, Atsushi; Pilati, Tullio; Resnati, Giuseppe; Terraneo, Giancarlo.



In: *Advanced Functional Materials*, Vol. 22, No. 12, 20.06.2012, p. 2572-2579.

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

**Molecular mechanisms of ion-specific effects on proteins.** / Rembert, Kelvin B.; Paterová, Jana; Heyda, Jan; Hilty, Christian; Jungwirth, Pavel; Cremer, Paul S.

In: *Journal of the American Chemical Society*, Vol. 134, No. 24, 20.06.2012, p. 10039-10046.

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

**Accurate description of aqueous carbonate ions : An effective polarization model verified by neutron scattering.** / Mason, Philip E.; Wernersson, Erik; Jungwirth, Pavel.

In: *Journal of Physical Chemistry Part B*, Vol. 116, No. 28, 19.07.2012, p. 8145-8153.

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

**Nematicons in azobenzene liquid crystals.** / Serak, Svetlana V.; Tabiryan, Nelson V.; Assanto, Gaetano.

In: *Molecular Crystals and Liquid Crystals*, Vol. 559, 19.07.2012, p. 202-213.

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

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

Kousoulidou, Marina; Ntziachristos, Leonidas; Fontaras, Georgios; Martini, Giorgio; Dilara, Panagiota; Samaras, Zissis.

In: *Fuel*, Vol. 98, 08.2012, p. 88-94.

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

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

Pegado, Luís; Marsalek, Ondrej; Jungwirth, Pavel; Wernersson, Erik.

In: *Physical Chemistry Chemical Physics*, Vol. 14, No. 29, 07.08.2012, p. 10248-10257.

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.** / Kapgade, Bharat P.; Das, Chayan; Das, Amit; Basu, Debdipta; Reuter, Uta; Heinrich, Gert.

In: *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*, Vol. 63, No. 3, 09.2012, p. 501-509.

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

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

Bardhan, Jaydeep P.; Jungwirth, Pavel; Makowski, Lee.

In: *Journal of Chemical Physics*, Vol. 137, No. 12, 124101, 28.09.2012.

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

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

Gao, Wei; Feng, Yakai; Lu, Jian; Khan, Musammir; Guo, Jintang.

In: *Macromolecular Research*, Vol. 20, No. 10, 10.2012, p. 1063-1069.

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.

In: *Carbon*, Vol. 50, No. 12, 10.2012, p. 4543-4556.

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. Nuruzzaman; Tjong, Vinalia; Chilkoti, Ashutosh; Zharnikov, Michael.

In: *Angewandte Chemie (International Edition)*, Vol. 51, No. 41, 08.10.2012, p. 10303-10306.

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

**Azobenzene photomechanics : Prospects and potential applications.** / Mahimwalla, Zahid; Yager, Kevin G.; Mamiya, Jun Ichi; Shishido, Atsushi; Priimagi, Arri; Barrett, Christopher J.

In: *Polymer Bulletin*, Vol. 69, No. 8, 11.2012, p. 967-1006.

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

**Influence of ionic liquids on the dielectric relaxation behavior of CNT based elastomer nanocomposites.** / Steinhauser, D.; Subramaniam, K.; Das, A.; Heinrich, G.; Klüppel, M.

In: *Express Polymer Letters*, Vol. 6, No. 11, 11.2012, p. 927-936.

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.

In: *HIGH ENERGY CHEMISTRY*, Vol. 46, No. 6, 11.2012, p. 363-367.

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.** / Pluhařová, Eva; Ončák, Milan; Seidel, Robert; Schroeder, Christi; Schroeder, William; Winter, Bernd; Bradforth, Stephen E.; Jungwirth, Pavel; Slavíček, Petr.

In: *Journal of Physical Chemistry Part B*, Vol. 116, No. 44, 08.11.2012, p. 13254-13264.

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

**Search for global minimum geometries of medium sized Cd<sub>n</sub>Te<sub>n</sub> clusters (n = 15, 16, 20, 24 and 28).** / Ma, Li; Wang, Jianguang; Wang, Guanghou.

In: *Chemical Physics Letters*, Vol. 552, 12.11.2012, p. 73-77.

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

**Peptide salt bridge stability : From gas phase via microhydration to bulk water simulations.** / Pluhařová, Eva; Marsalek, Ondrej; Schmidt, Burkhard; Jungwirth, Pavel.

In: *Journal of Chemical Physics*, Vol. 137, No. 18, 185101, 14.11.2012.

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

**Semiclassical hybrid approach to condensed phase molecular dynamics : Application to the I<sub>2</sub>Kr<sub>17</sub> cluster.** / Buchholz, Max; Goletz, Christoph Marian; Grossmann, Frank; Schmidt, Burkhard; Heyda, Jan; Jungwirth, Pavel.

In: *Journal of Physical Chemistry A*, Vol. 116, No. 46, 26.11.2012, p. 11199-11210.

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, Davoodbasha; Praveenkumar, Ramasamy; Shenbagavalli, Thiyagarajan; Mari Nivetha, Thayalan; Parveez Ahamed, Abdulazees; Al-Dhabi, Naif Abdullah; Thajuddin, Nooruddin.

In: *RSC Advances*, Vol. 2, No. 30, 28.11.2012, p. 11552-11556.

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

**Improving the effect of a nanoscale barrier coating on BOPP film properties by surface pretreatments.** / Lahtinen, Kimmo; Lahti, Johanna; Johansson, Petri; Seppänen, Tarja; Cameron, David C.

14th European PLACE Conference 2013. Vol. 1 TAPPI Press, 2013. p. 469-493.

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

**Molecular mechanism of T-cell protein tyrosine phosphatase (TCPTP) activation by mitoxantrone.** / Ylilauri, Mikko; Mattila, Elina; Nurminen, Elisa M.; Käpylä, Jarmo; Niinivehmas, Sanna P.; Määttä, Juha A.; Pentikäinen, Ulla; Ivaska, Johanna; Pentikäinen, Olli T.

In: *Biochimica et biophysica acta: proteins and proteomics*, Vol. 1834, No. 10, 2013, p. 1988-1997.

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.** / Kulig, Waldemar; Agmon, Noam.

In: *Nature Chemistry*, Vol. 5, No. 1, 01.2013, p. 29-35.

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.** / Wang, Heyun; Feng, Yakai; Zhao, Haiyang; Fang, Zichen; Khan, Musammir; Guo, Jintang.

In: Journal Nanoscience and Nanotechnology, Vol. 13, No. 2, 02.2013, p. 1578-1582.

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

**Density functional theory study of FePd<sub>n</sub> (n = 2-14) clusters and interactions with small molecules.** / Ma, Li; Wang, Jianguang; Hao, Yuanyuan; Wang, Guanghou.

In: Computational Materials Science, Vol. 68, 02.2013, p. 166-173.

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

**Growth behavior and magnetic properties of spherical uranium oxide nanoclusters.** / Ma, Li; Ray, Asok K.

In: Journal of Computational and Theoretical Nanoscience, Vol. 10, No. 2, 02.2013, p. 334-340.

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

**Networking of ionic liquid modified CNTs in SSBR.** / Subramaniam, Kalaivani; Das, Amit; Simon, Frank; Heinrich, Gert.

In: European Polymer Journal, Vol. 49, No. 2, 02.2013, p. 345-352.

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

**Chemically tailored dielectric-to-metal transition for the design of metamaterials from nanoimprinted colloidal nanocrystals.** / Fafarman, Aaron T.; Hong, Sung Hoon; Caglayan, Humeyra; Ye, Xingchen; Diroll, Benjamin T.; Paik, Taejong; Engheta, Nader; Murray, Christopher B.; Kagan, Cherie R.

In: Nano Letters, Vol. 13, No. 2, 13.02.2013, p. 350-357.

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, Mario; Jungwirth, Pavel; Mason, Philip E.

In: Journal of Physical Chemistry Part B, Vol. 117, No. 6, 14.02.2013, p. 1844-1848.

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

**Fabrication of a sub-10 nm silicon nanowire based ethanol sensor using block copolymer lithography.** / Rasappa, Sozaraj; Borah, Dipu; Faulkner, Colm C.; Lutz, Tarek; Shaw, Matthew T.; Holmes, Justin D.; Morris, Michael A.

In: Nanotechnology, Vol. 24, No. 6, 065503, 15.02.2013.

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

**Optical vortex generation in nematic liquid crystal light valves.** / Barboza, R.; Bortolozzo, U.; Assanto, G.; Residori, S.

In: Molecular Crystals and Liquid Crystals, Vol. 572, No. 1, 01.03.2013, p. 24-30.

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.** / Borah, Dipu; Ozmen, Mustafa; Rasappa, Sozaraj; Shaw, Matthew T.; Holmes, Justin D.; Morris, Michael A.

In: Langmuir, Vol. 29, No. 9, 05.03.2013, p. 2809-2820.

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

**Site-specific analysis of dipole polarizabilities of heterogeneous systems : Iron-doped Si<sub>n</sub> (n = 1-14) clusters.** / Ma, Li; Wang, Jianguang; Wang, Guanghou.

In: Journal of Chemical Physics, Vol. 138, No. 9, 094304, 07.03.2013.

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

**Biomimetic zinc chlorin-poly(4-vinylpyridine) assemblies : Doping level dependent emission-absorption regimes.** / Pale, Ville; Nikkonen, Taru; Vapaavuori, Jaana; Kostianen, Mauri; Kavakka, Jari; Selin, Jorma; Tittonen, Ilkka; Helaja, Juho.

In: Journal of Materials Chemistry C, Vol. 1, No. 11, 21.03.2013, p. 2166-2173.

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

**Understanding the reinforcing behavior of expanded clay particles in natural rubber compounds.** / Rooj, Sandip; Das, Amit; Stöckelhuber, Klaus Werner; Wang, De Yi; Galiatsatos, Vassilios; Heinrich, Gert.

In: Soft Matter, Vol. 9, No. 14, 14.04.2013, p. 3798-3808.

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

**Nanoindentation study of light-induced softening of supramolecular and covalently functionalized azo polymers.** / Vapaavuori, Jaana; Mahimwalla, Zahid; Chromik, Richard R.; Kaivola, Matti; Priimagi, Arri; Barrett, Christopher J.  
In: *Journal of Materials Chemistry C*, Vol. 1, No. 16, 28.04.2013, p. 2806-2810.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group.** / Tan, Mingqi; Feng, Yakai; Wang, Heyun; Zhang, Li; Khan, Musamir; Guo, Jintang; Chen, Qingliang; Liu, Jianshi.  
In: *Macromolecular Research*, Vol. 21, No. 5, 05.2013, p. 541-549.  
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.** / Bayr, Suvi; Kaparaju, Prasad; Rintala, Jukka.  
In: *Chemical Engineering Journal*, Vol. 223, 01.05.2013, p. 479-486.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Depth profiling of PLGA copolymer in a novel biomedical bilayer using confocal raman spectroscopy.** / McManamon, Colm; Delaney, Paul; Kavanagh, Claire; Wang, Jing Jing; Rasappa, Sozaraj; Morris, Michael A.  
In: *Langmuir*, Vol. 29, No. 19, 14.05.2013, p. 5905-5910.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Surface properties and interaction forces of biopolymer-doped conductive polypyrrole surfaces by atomic force microscopy.** / Pelto, Jani M.; Haimi, Suvi P.; Siljander, Aliisa S.; Miettinen, Susanna S.; Tappura, Kirsi M.; Higgins, Michael J.; Wallace, Gordon G.  
In: *Langmuir*, Vol. 29, No. 20, 21.05.2013, p. 6099-6108.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Cation-specific effects on enzymatic catalysis driven by interactions at the tunnel mouth.** / Štěpánková, Veronika; Paterová, Jana; Damborský, Jiří; Jungwirth, Pavel; Chaloupková, Radka; Heyda, Jan.  
In: *Journal of Physical Chemistry Part B*, Vol. 117, No. 21, 30.05.2013, p. 6394-6402.  
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, Miriam E.; Totlandsdal, Annike I.; Tzamkiozis, Theodoros; Leseman, Daan L A C; Samaras, Zissis; Låg, Marit; Schwarze, Per; Ntziachristos, Leonidas; Cassee, Flemming R.  
In: *Environmental Science and Technology*, Vol. 47, No. 11, 04.06.2013, p. 5931-5938.  
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, Thomas R.; Paik, Taejong; Klein, Dahlia R.; Naik, Gururaj V.; Caglayan, Humeyra; Boltasseva, Alexandra; Murray, Christopher B.  
In: *Nano Letters*, Vol. 13, No. 6, 12.06.2013, p. 2857-2863.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Development and characterization of poly( $\epsilon$ -caprolactone) hollow fiber membranes for vascular tissue engineering.** / Diban, Nazely; Haimi, Suvi; Bolhuis-Versteeg, Lydia; Teixeira, Sandra; Miettinen, Susanna; Poot, André; Grijpma, Dirk; Stamatialis, Dimitrios.  
In: *Journal of Membrane Science*, Vol. 438, 01.07.2013, p. 29-37.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Photoswitchable hydrogel surface topographies by polymerisation-induced diffusion.** / Stumpel, Jelle E.; Liu, Danqing; Broer, Dirk J.; Schenning, Albertus P H J.  
In: *Chemistry: A European Journal*, Vol. 19, No. 33, 02.07.2013, p. 10922-10927.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Reversal of the Hofmeister series : Specific ion effects on peptides.** / Paterová, Jana; Rembert, Kelvin B.; Heyda, Jan; Kurra, Yadagiri; Okur, Halil I.; Liu, Wenshe R.; Hilty, Christian; Cremer, Paul S.; Jungwirth, Pavel.  
In: *Journal of Physical Chemistry Part B*, Vol. 117, No. 27, 11.07.2013, p. 8150-8158.  
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.** / Borah, Dipu; Rasappa, Sozaraj; Sentharamaikannan, Ramsankar; Holmes, Justin D.; Morris, Michael A.  
In: *Langmuir*, Vol. 29, No. 28, 16.07.2013, p. 8959-8968.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Irradiation promoted exchange reaction with disulfide substituents.** / Khan, M. Nuruzzaman; Zharnikov, Michael.  
In: *Journal of Physical Chemistry C*, Vol. 117, No. 28, 18.07.2013, p. 14534-14543.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Mechanisms of acceleration and retardation of water dynamics by ions.** / Stirnemann, Guillaume; Wernersson, Erik; Jungwirth, Pavel; Laage, Damien.  
In: *Journal of the American Chemical Society*, Vol. 135, No. 32, 14.08.2013, p. 11824-11831.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Spectroscopic study of a DNA brush synthesized in situ by surface initiated enzymatic polymerization.** / Khan, M. Nuruzzaman; Tjong, Vinalia; Chilkoti, Ashutosh; Zharnikov, Michael.  
In: *Journal of Physical Chemistry Part B*, Vol. 117, No. 34, 29.08.2013, p. 9929-9938.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Zinc coordination spheres in protein structures.** / Laitaoja, Mikko; Valjakka, Jarkko; Jänis, Janne.  
In: *Inorganic Chemistry*, Vol. 52, No. 19, 07.10.2013, p. 10983-10991.  
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.** / Sterpone, Fabio; Nguyen, Phuong H.; Kalimeri, Maria; Derreumaux, Philippe.  
In: *Journal of Chemical Theory and Computation*, Vol. 9, No. 10, 08.10.2013, p. 4574-4584.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Reversible biofunctionalization of surfaces with a switchable mutant of avidin.** / Pollheimer, Philipp; Taskinen, Barbara; Scherfler, Andreas; Gusakov, Sergey; Creus, Marc; Wiesauer, Philipp; Zauner, Dominik; Schöfberger, Wolfgang; Schwarzinger, Clemens; Ebner, Andreas; Tampé, Robert; Stutz, Hanno; Hytönen, Vesa P.; Gruber, Hermann J.  
In: *Bioconjugate Chemistry*, Vol. 24, No. 10, 16.10.2013, p. 1656-1668.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Porphyrin adsorbed on the (1010) surface of the wurtzite structure of ZnO-conformation induced effects on the electron transfer characteristics.** / Niskanen, Mika; Kuisma, Mikael; Cramariuc, Oana; Golovanov, Viacheslav; Hukka, Terttu I.; Tkachenko, Nikolai; Rantala, Tapio T.  
In: *Physical Chemistry Chemical Physics*, Vol. 15, No. 40, 28.10.2013, p. 17408-17418.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Embedded cluster models for reactivity of the hydrated electron.** / Uhlig, Frank; Jungwirth, Pavel.  
In: *ZEITSCHRIFT FÜR PHYSIKALISCHE CHEMIE-INTERNATIONAL JOURNAL OF RESEARCH IN PHYSICAL CHEMISTRY AND CHEMICAL PHYSICS*, Vol. 227, No. 11, 11.2013, p. 1583-1593.  
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, Dipu; Simao, Claudia D.; Sentharamaikannan, Ramsankar; Rasappa, Sozaraj; Francone, Achille; Lorret, Olivier; Salaun, Mathieu; Kosmala, Barbara; Kehagias, Nikolaos; Zelsmann, Marc; Sotomayor-Torres, Clivia M.; Morris, Michael A.  
In: *European Polymer Journal*, Vol. 49, No. 11, 11.2013, p. 3512-3521.  
Research output: Contribution to journal > Article > Scientific > peer-review

**How conformational flexibility stabilizes the hyperthermophilic elongation factor G-domain.** / Kalimeri, Maria; Rahaman, Obaidur; Melchionna, Simone; Sterpone, Fabio.

In: *Journal of Physical Chemistry Part B*, Vol. 117, No. 44, 07.11.2013, p. 13775-13785.

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

**The Halogen Bond in the Design of Functional Supramolecular Materials : Recent Advances.** / Priimagi, Arri; Cavallo, Gabriella; Metrangolo, Pierangelo; Resnati, Giuseppe.

In: *Accounts of Chemical Research*, Vol. 46, No. 11, 19.11.2013, p. 2686-2695.

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

**Ion pairing in aqueous lithium salt solutions with monovalent and divalent counter-anions.** / Pluhařová, Eva; Mason, Philip E.; Jungwirth, Pavel.

In: *Journal of Physical Chemistry A*, Vol. 117, No. 46, 21.11.2013, p. 11766-11773.

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, Jana; Prokop, Zbynek; Chaloupkova, Radka; Damborsky, Jiri; Jungwirth, Pavel.

In: *Journal of Physical Chemistry Part B*, Vol. 117, No. 46, 21.11.2013, p. 14329-14335.

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. Nuruzzaman; Zharnikov, Michael.

In: *Journal of Physical Chemistry C*, Vol. 117, No. 47, 27.11.2013, p. 24883-24893.

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

**Effect of surface morphology of poly( $\epsilon$ -caprolactone) scaffolds on adipose stem cell adhesion and proliferation.** / Diban, Nazely; Haimi, Suvi P.; Bolhuis-Versteeg, Lydia; Teixeira, Sandra; Miettinen, Susanna; Poot, André A.; Grijpma, Dirk W.; Stamatialis, Dimitrios.

In: *Macromolecular symposia*, Vol. 334, No. 1, 12.2013, p. 126-132.

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.

In: *Macromolecular symposia*, Vol. 334, No. 1, 12.2013, p. 49-56.

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, Salvador Jimenez; Behbahani, Mehdi; Miettinen, Susanna; Grijpma, Dirk W.; Haimi, Suvi P.

In: *Macromolecular symposia*, Vol. 334, No. 1, 12.2013, p. 133-142.

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.

In: *Polymer*, Vol. 54, No. 26, 13.12.2013, p. 7009-7021.

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

**Analysis of free, mono- and diacetylated polyamines from human urine by LC-MS/MS.** / Häkkinen, Merja R.; Roine, Antti; Auriola, Seppo; Tuokko, Antti; Veskimäe, Erik; Keinänen, Tuomo A.; Lehtimäki, Terho; Oksala, Niku; Vepsäläinen, Jouko.

In: *JOURNAL OF CHROMATOGRAPHY B: ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES*, Vol. 941, 15.12.2013, p. 81-89.

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.

In: Journal of Materials Chemistry C, Vol. 1, No. 47, 21.12.2013, p. 7941-7951.

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

**A full-potential linearized augmented plane wave study of the interaction of CO<sub>2</sub> with  $\alpha$ -Pu (020) surface nanolayers.** / Wang, Jianguang; Ray, Asok K.

In: Journal of Computational and Theoretical Nanoscience, Vol. 11, No. 7, 2014, p. 1710-1717.

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

**A microscopic view of the mechanisms of active transport across the cellular membrane.** / Enkavi, Giray; Li, Jing; Wen, Pochao; Thangapandian, Sundarapandian; Moradi, Mahmoud; Jiang, Tao; Han, Wei; Tajkhorshid, Emad.

In: Annual Reports in Computational Chemistry, Vol. 10, 2014, p. 77-125.

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

**Direct observation of the collapse of the delocalized excess electron in water.** / Savolainen, Janne; Uhlig, Frank; Ahmed, Saima; Hamm, Peter; Jungwirth, Pavel.

In: Nature Chemistry, Vol. 6, No. 8, 2014, p. 697-701.

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, Hai Hong; Parsekar, Meenali; Ilisch, Sybill; Henning, Sven; Das, Amit; Stöckelhuber, Klaus Werner; Beiner, Mario; Ho, Chi Anh; Adhikari, Rameshwar; Wießner, Sven; Heinrich, Gert; Radosch, Hans Joachim.

In: Macromolecular Materials and Engineering, Vol. 299, No. 5, 2014, p. 569-582.

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

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

Rasappa, Sozaraj; Borah, Dipu; Sentharamaikkannan, Ramsankar; Faulkner, Colm C.; Holmes, Justin D.; Morris, Michael A.

In: Journal Nanoscience and Nanotechnology, Vol. 14, No. 7, 2014, p. 5221-5227.

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, Johanna; Johansson, Petri; Lahtinen, Kimmo; Cameron, David C.; Seppänen, Tarja. TAPPI PLACE Conference 2014. Vol. 2 TAPPI Press, 2014. p. 1039-1061.

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, Tuomas; Ebner, Andreas; Gruber, Hermann J.; Taskinen, Barbara; Kienberger, Ferry; Hänninen, Pekka E.; Hytönen, Vesa P.; Hinterdorfer, Peter; Härmä, Harri.

In: Analytical and Bioanalytical Chemistry, Vol. 406, No. 2, 2014, p. 493-503.

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.

In: Computational Materials Science, Vol. 92, 2014, p. 135-140.

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

**Molekuly a ionty v pohybu : Počítačové simulace biochemických a biofyzikálních procesů.** / Jungwirth, Pavel.

In: Chemické Listy, Vol. 108, No. 4, 2014, p. 278-284.

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.

In: DOKLADY BIOCHEMISTRY AND BIOPHYSICS, Vol. 454, No. 1, 2014, p. 17-20.

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, Melanie; Karner, Andreas; Leitner, Michael; Hytönen, Vesa P.; Kulomaa, Markku; Hinterdorfer, Peter; Ebner, Andreas.

In: *Molecules*, Vol. 19, No. 8, 2014, p. 12531-12546.

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, Parvaneh; Cummins, Cian; Rasappa, Sozaraj; Simao, Claudia; Torres, Clivia M Sotomayor; Holmes, Justin D.; Morris, Michael A.

In: *Langmuir*, Vol. 30, No. 35, 2014, p. 10728-10739.

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

**Natural thermal adaptation increases heat shock protein levels and decreases oxidative stress.** / Oksala, Niku K J; Ekmekçi, F. Güler; Özsoy, Ergi; Kirankaya, Şerife; Kokkola, Tarja; Emecen, Güzin; Lappalainen, Jani; Kaarniranta, Kai; Atalay, Mustafa.

In: *REDOX BIOLOGY*, Vol. 3, 01.01.2014, p. 25-28.

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

**Both zundel and eigen isomers contribute to the IR spectrum of the gas-phase H<sub>9</sub>O<sub>4</sub> + cluster.** / Kulig, Waldemar; Agmon, Noam.

In: *Journal of Physical Chemistry Part B*, Vol. 118, No. 1, 09.01.2014, p. 278-286.

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

**Azopolymer-based micro- and nanopatterning for photonic applications.** / Priimagi, Arri; Shevchenko, Andriy.

In: *Journal of Polymer Science. Part B, Polymer Physics*, Vol. 52, No. 3, 01.02.2014, p. 163-182.

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. Nuruzzaman; Zharnikov, Michael.

In: *Journal of Physical Chemistry C*, Vol. 118, No. 6, 13.02.2014, p. 3093-3101.

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, Waldemar; Agmon, Noam.

In: *Physical Chemistry Chemical Physics*, Vol. 16, No. 10, 14.03.2014, p. 4933-4941.

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

**Protein conformation as a regulator of cell-matrix adhesion.** / Hytönen, Vesa P.; Wehrle-Haller, Bernhard.

In: *Physical Chemistry Chemical Physics*, Vol. 16, No. 14, 14.04.2014, p. 6342-6357.

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, Michael G.; Soboleva, Irina V.; Durandin, Nikita A.; Lisitsyna, Ekaterina S.; Kuzmin, Vladimir A.

In: *Journal of Physical Chemistry Part B*, Vol. 118, No. 15, 17.04.2014, p. 4245-4252.

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

**Light-fuelled transport of large dendrimers and proteins.** / Koskela, Jenni E.; Liljeström, Ville; Lim, Jongdoo; Simanek, Eric E.; Ras, Robin H A; Priimagi, Arri; Kostianen, Mauri A.

In: *Journal of the American Chemical Society*, Vol. 136, No. 19, 14.05.2014, p. 6850-6853.

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, Sanjeev; Deswal, Deepa; Karp, Matti; Kuhad, Ramesh Chander.

In: *Fuel*, Vol. 124, 15.05.2014, p. 183-189.

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, Eva; Fischer, Henry E.; Mason, Philip E.; Jungwirth, Pavel.  
In: Molecular Physics, Vol. 112, No. 9-10, 19.05.2014, p. 1230-1240.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Carbon nanotubes-filled thermoplastic polyurethane-urea and carboxylated acrylonitrile butadiene rubber blend nanocomposites.** / Mahmood, Nasir; Khan, Asad Ullah; Stöckelhuber, Klaus Werner; Das, Amit; Jehnichen, Dieter; Heinrich, Gert.  
In: Journal of Applied Polymer Science, Vol. 131, No. 11, 05.06.2014.  
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, Josephina; Wernersson, Erik; Ekholm, Victor; Ottosson, Niklas; Öhrwall, Gunnar; Heyda, Jan; Persson, Ingmar; Söderström, Johan; Jungwirth, Pavel; Björneholm, Olle.  
In: Journal of Physical Chemistry Part B, Vol. 118, No. 25, 26.06.2014, p. 7119-7127.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Accurate description of calcium solvation in concentrated aqueous solutions.** / Kohagen, Miriam; Mason, Philip E.; Jungwirth, Pavel.  
In: Journal of Physical Chemistry Part B, Vol. 118, No. 28, 17.07.2014, p. 7902-7909.  
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, Maria; Varis, Tommi; Ruusuvoori, Kimmo.  
In: Surface and Coatings Technology, Vol. 251, 25.07.2014, p. 191-200.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Molecular engineering of avidin and hydrophobin for functional self-assembling interfaces.** / Kurppa, Katri; Hytönen, Vesa P.; Nakari-Setälä, Tiina; Kulomaa, Markku S.; Linder, Markus B.  
In: Colloids and Surfaces B: Biointerfaces, Vol. 120, 01.08.2014, p. 102-109.  
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, Bharat P.; Das, Chayan; Basu, Debdipta; Das, Amit; Heinrich, Gert; Reuter, Uta.  
In: Journal of Applied Polymer Science, Vol. 131, No. 15, 40531, 05.08.2014.  
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.; Radosch, H. J.  
In: Polymer, Vol. 55, No. 18, 02.09.2014, p. 4738-4747.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Optical spectroscopy of the bulk and interfacial hydrated electron from ab initio calculations.** / Uhlig, Frank; Herbert, John M.; Coons, Marc P.; Jungwirth, Pavel.  
In: Journal of Physical Chemistry A, Vol. 118, No. 35, 04.09.2014, p. 7507-7515.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Recent twists in photoactuation and photoalignment control.** / Priimagi, Arri; Barrett, Christopher J.; Shishido, Atsushi.  
In: Journal of Materials Chemistry C, Vol. 2, No. 35, 21.09.2014, p. 7155-7162.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Density functional theory study of transition metals doped B<sub>80</sub> fullerene.** / Wang, Jianguang; Ma, Li; Liang, Yanhua; Gao, Meiling; Wang, Guanghou.  
In: Journal of Theoretical and Computational Chemistry, Vol. 13, No. 6, 1450050, 22.09.2014.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Pyrene based conjugated materials : Synthesis, characterization and electroluminescent properties.** / Salunke, Jagadish K.; Sonar, Prashant; Wong, F. L.; Roy, V. A L; Lee, C. S.; Wadgaonkar, Prakash P.  
In: Physical Chemistry Chemical Physics, Vol. 16, No. 42, 26.09.2014, p. 23320-23328.  
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, Alexis; Corkery, T. Christopher; Priimagi, Arri; Barrett, Christopher J.  
In: Journal of Materials Chemistry C, Vol. 2, No. 36, 28.09.2014, p. 7505-7512.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Rapid, Brushless Self-assembly of a PS-b-PDMS Block Copolymer for Nanolithography.** / Rasappa, Sozaraj; Schulte, Lars; Borah, Dipu; Morris, Michael A.; Ndoni, Sokol.  
In: Colloids and Interface Science Communications, Vol. 2, 01.10.2014, p. 1-5.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Global analysis of human nonreceptor tyrosine kinase specificity using high-density peptide microarrays.** / Deng, Yang; Alicea-Velázquez, Nilda L.; Bannwarth, Ludovic; Lehtonen, Soili I.; Boggon, Titus J.; Cheng, Heung Chin; Hytönen, Vesa P.; Turk, Benjamin E.  
In: Journal of Proteome Research, Vol. 13, No. 10, 03.10.2014, p. 4339-4346.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Impact of selective catalytic reduction on exhaust particle formation over excess ammonia events.** / Amanatidis, Stavros; Ntziachristos, Leonidas; Giechaskiel, Barouch; Bergmann, Alexander; Samaras, Zissis.  
In: Environmental Science and Technology, Vol. 48, No. 19, 07.10.2014, p. 11527-11534.  
Research output: Contribution to journal > Article > Scientific > peer-review

**A supramolecular approach to photoresponsive thermo/solvoplastic block copolymer elastomers.** / Wang, Xin; Vapaavuori, Jaana; Zhao, Yue; Bazuin, C. Geraldine.  
In: Macromolecules, Vol. 47, No. 20, 28.10.2014, p. 7099-7108.  
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, Aruna Kumar; Ghosh, Anindita; Sawai, Pravin; Pareek, Kapil; Banerjee, Susanta; Das, Amit; Pötschke, Petra; Heinrich, Gert; Voit, Brigitte.  
In: Polymer Engineering and Science, Vol. 54, No. 11, 01.11.2014, p. 2560-2570.  
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, Bhausheeb V.; Salunke, Jagadish K.; Sane, Prakash S.; Wadgaonkar, Prakash P.  
In: JOURNAL OF POLYMER RESEARCH, Vol. 21, No. 12, 18.11.2014.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Time-resolved fluorescence methods (IUPAC technical report).** / Lemmetyinen, Helge; Tkachenko, Nikolai V.; Valeur, Bernard; Hotta, Jun Ichi; Ameloot, Marcel; Ernsting, Nikolaus P.; Gustavsson, Thomas; Boens, Noël.  
In: Pure and Applied Chemistry, Vol. 86, No. 12, 01.12.2014, p. 1969-1998.  
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, Vladimír; Pluharová, Eva; Unger, Isaak; Winter, Bernd; Jungwirth, Pavel.  
In: Journal of Physical Chemistry Part B, Vol. 118, No. 48, 04.12.2014, p. 13833-13837.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Switchavidin : Reversible biotin-avidin-biotin bridges with high affinity and specificity.** / Taskinen, Barbara; Zauner, Dominik; Lehtonen, Soili I.; Koskinen, Masi; Thomson, Chloe; Kähkönen, Niklas; Kukkurainen, Sampo; Määttä, Juha A E; Ihalainen, Teemu O.; Kulomaa, Markku S.; Gruber, Hermann J.; Hytönen, Vesa P.

In: *Bioconjugate Chemistry*, Vol. 25, No. 12, 17.12.2014, p. 2233-2243.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Stimuli-responsive photonic polymer coatings.** / Stumpel, Jelle E.; Broer, Dirk J.; Schenning, Albertus P H J.  
In: *Chemical Communications*, Vol. 50, No. 100, 28.12.2014, p. 15839-15848.  
Research output: Contribution to journal > Review 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.  
In: *Polymer Testing*, Vol. 42, 2015, p. 1-7.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Block co-polymers for nanolithography : Rapid microwave annealing for pattern formation on substrates.** / Borah, Dipu; Rasappa, Sozaraj; Senthamaraikannan, Ramsankar; Holmes, Justin D.; Morris, Michael A.  
In: *Polymers*, Vol. 7, No. 4, 2015, p. 592-609.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Characterisation of novel regenerated cellulosic, viscose, and cotton fibres and the dyeing properties of fabrics.** / Kampuri, Taina; Vehviläinen, Marianna; Puolakka, Arja; Honkanen, Mari; Vippola, Minnamari; Rissanen, Marja.  
In: *Coloration Technology*, Vol. 131, No. 5, 2015, p. 396-402.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Chemolithotrophic denitrification in biofilm reactors.** / Di Capua, Francesco; Papirio, Stefano; Lens, Piet N L; Esposito, Giovanni.  
In: *Chemical Engineering Journal*, Vol. 280, 2015, p. 643-657.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Coulomb explosion during the early stages of the reaction of alkali metals with water.** / Mason, Philip E.; Uhlig, Frank; Vaněk, Václav; Buttersack, Tillmann; Bauerecker, Sigurd; Jungwirth, Pavel.  
In: *Nature Chemistry*, Vol. 7, No. 3, 2015, p. 250-254.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Geometry controlled anomalous diffusion in random fractal geometries : Looking beyond the infinite cluster.** / Mardoukhi, Yousof; Jeon, Jae-Hyung; Metzler, Ralf.  
In: *Physical Chemistry Chemical Physics*, Vol. 17, No. 44, 2015, p. 30134-30147.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Halogen-bonded photoresponsive materials.** / Saccone, Marco; Cavallo, Gabriella; Metrangolo, Pierangelo; Resnati, Giuseppe; Priimagi, Arri.  
*Halogen Bonding II: Impact on Materials Chemistry and Life Sciences.* Springer International Publishing, 2015. p. 147-166 (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, Beatriz; Abou-Chahine, Fawzi; Calbo, Joaquín; Caballero, Rubén; delaCruz, Pilar; Junquera-Hernández, José M.; Ortí, Enrique; Tkachenko, Nikolai V.; Langa, Fernando.  
In: *Chemistry: A European Journal*, Vol. 21, No. 15, 2015, p. 5814-5825.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels.** / Stumpel, Jelle E.; Gil, Elda Renedo; Spoelstra, Anne B.; Bastiaansen, Cees W M; Broer, Dirk J.; Schenning, Albertus P H J.  
In: *Advanced Functional Materials*, Vol. 25, No. 22, 2015, 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, Intissar; Valkonen, Arto; Rzaigui, Mohamed; Smirani, Wajda.

In: Monatshefte für Chemie, Vol. 146, No. 12, 2015, p. 2007-2020.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Synthesis of fluorescent naphthoquinolizines via intramolecular Houben-Hoesch reaction.** / Stasyuk, Anton J.; Smoleń, Sabina; Glodkowska-Mrowka, Eliza; Bratkowski, Wojciech; Cyrański, Michał K.; Tkachenko, Nikolai; Gryko, Daniel T.  
In: Chemistry - An Asian Journal, Vol. 10, No. 3, 2015, p. 553-558.  
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, Topi; Cramariuc, Oana; Kuisma, Mikael; Tappura, Kirsi; Hukka, Terttu I.  
In: Journal of Computational Chemistry, Vol. 36, No. 9, 2015, p. 612-621.  
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.  
In: RSC Advances, Vol. 5, No. 115, 2015, p. 94650-94653.  
Research output: Contribution to journal > Article > Scientific > peer-review

**$\pi$ -Expanded  $\alpha,\beta$ -unsaturated ketones : Synthesis, optical properties, and two-photon-induced polymerization.** / Nazir, Rashid; Bourquard, Florent; Balčiūnas, Evaldas; Smoleń, Sabina; Gray, David; Tkachenko, Nikolai V.; Farsari, Maria; Gryko, Daniel T.  
In: ChemPhysChem, Vol. 16, No. 3, 2015, p. 682-690.  
Research output: Contribution to journal > Article > Scientific > peer-review

**A comparison of five optical surface topography measurement methods.** / Mettänen, Marja; Hirn, Ulrich.  
In: TAPPI Journal, Vol. 14, No. 1, 01.01.2015, p. 27-38.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Appropriate pricing policy needed worldwide for improving water services infrastructure.** / Hukka, Jarmo J.; Katko, Tapio S.  
In: Journal American Water Works Association, Vol. 107, No. 1, 01.01.2015, p. E37-E46.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as  $\pi$ -acceptors for anions.** / Yi, H.; Albrecht, M.; Valkonen, A.; Rissanen, K.  
In: New Journal of Chemistry, Vol. 39, No. 1, 01.01.2015, p. 746-749.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Photophysical properties of Sn (IV)tetraphenylporphyrin-pyrene dyad with a  $\beta$ -vinyl linker.** / Reeta, P. Silviya; Khetubol, Adis; Jella, Tejaswi; Chukharev, Vladimir; Abou-Chahine, Fawzi; Tkachenko, Nikolai V.; Giribabu, L.; Lemmetyinen, Helge.  
In: Journal of Porphyrins and Phthalocyanines, Vol. 19, No. 1-3, 01.01.2015, p. 288-300.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Manipulation of polycarbonate urethane bulk properties via incorporated zwitterionic polynorbornene for tissue engineering application.** / Khan, Musamir; Yang, Jing; Shi, Changcan; Feng, Yakai; Zhang, Wencheng; Gibney, Katie; Tew, Gregory N.  
In: RSC Advances, Vol. 5, No. 15, 06.01.2015, p. 11284-11292.  
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, Christi A.; Pluharová, Eva; Seidel, Robert; Schroeder, William P.; Faubel, Manfred; Slaviček, Petr; Winter, Bernd; Jungwirth, Pavel; Bradforth, Stephen E.  
In: Journal of the American Chemical Society, Vol. 137, No. 1, 14.01.2015, p. 201-209.  
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.

In: Nano Letters, Vol. 15, No. 1, 14.01.2015, p. 530-534.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Kinetics of polymer looping with macromolecular crowding : Effects of volume fraction and crowder size.** / Shin, Jaeoh; Cherstvy, Andrey G.; Metzler, Ralf.

In: Soft Matter, Vol. 11, No. 3, 21.01.2015, p. 472-488.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Non-universal tracer diffusion in crowded media of non-inert obstacles.** / Ghosh, Surya K.; Cherstvy, Andrey G.; Metzler, Ralf.

In: Physical Chemistry Chemical Physics, Vol. 17, No. 3, 21.01.2015, p. 1847-1858.  
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, Zhuo; Le, Taoran; Wu, Zhenkun; Yao, Yagang; Li, Liyi; Tentzeris, Manos; Moon, Kyoung Sik; Wong, C. P.

In: Advanced Functional Materials, Vol. 25, No. 3, 21.01.2015, p. 464-470.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Silver sulfide nanoclusters and the superatom model.** / Goh, Jing-Qiang; Malola, Sami; Häkkinen, Hannu; Akola, Jaakko.

In: Journal of Physical Chemistry C, Vol. 119, No. 3, 22.01.2015, p. 1583-1590.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Supramolecular hierarchy among halogen and hydrogen bond donors in light-induced surface patterning.** / Saccone, Marco; Dichiarante, Valentina; Forni, Alessandra; Goulet-Hanssens, Alexis; Cavallo, Gabriella; Vapaavuori, Jaana; Terraneo, Giancarlo; Barrett, Christopher J.; Resnati, Giuseppe; Metrangolo, Pierangelo; Priimägi, Arri.

In: Journal of Materials Chemistry C, Vol. 3, 28.01.2015, p. 759-768.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Sulfonated polyetheretherketone/polypropylene polymer blends for the production of photoactive materials.** / Fatarelle, Enrico; Mylläri, Ville; Ruzzante, Marco; Pogni, Rebecca; Baratto, Maria Camilla; Skrifvars, Mikael; Syrjälä, Seppo; Järvelä, Pentti.

In: Journal of Applied Polymer Science, Vol. 132, No. 8, 41509, 01.02.2015.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Second-harmonic generation imaging of semiconductor nanowires with focused vector beams.** / Bautista, Godofredo; Mäkitalo, Jouni; Chen, Ya; Dhaka, Veer; Grasso, Marco; Karvonen, Lasse; Jiang, Hua; Huttunen, Mikko J.; Huhtio, Teppo; Lipsanen, Harri; Kauranen, Martti.

In: Nano Letters, Vol. 15, No. 3, 06.02.2015, p. 1564-1569.  
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.

In: CrystEngComm, Vol. 17, No. 5, 07.02.2015, p. 1182-1188.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Neutralized chimeric avidin binding at a reference biosensor surface.** / Ray, Santanu; Steven, Rory T.; Green, Felicia M.; Höök, Fredrik; Taskinen, Barbara; Hytönen, Vesa P.; Shard, Alexander G.

In: Langmuir, Vol. 31, No. 6, 17.02.2015, p. 1921-1930.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Polymer looping is controlled by macromolecular crowding, spatial confinement, and chain stiffness.** / Shin, Jaeoh; Cherstvy, Andrey G.; Metzler, Ralf.

In: ACS Macro Letters, Vol. 4, No. 2, 17.02.2015, p. 202-206.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Crystal structure of 2-methylpiperazine-1,4-dium bis(hydrogen maleate).** / Wecharine, Intissar; Valkonen, Arto; Rzaigui, Mohamed; Sta, Wajda Smirani; Smith, G.

In: Acta Crystallographica Section E : Structure Reports Online, Vol. 71, No. 3, 01.03.2015, 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, Subramani Bhagavatheswaran; Basu, Debdipta; Vaikuntam, Sankar Raman; Kutlu, Burak; Wiessner, Sven; Das, Amit; Naskar, Kinsuk; Heinrich, Gert.

In: Journal of Applied Polymer Science, Vol. 132, No. 9, 41539, 01.03.2015.

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

**Resveratrol interferes with the aggregation of membrane-bound human-IAPP : A molecular dynamics study.** / Lolicato, Fabio; Raudino, Antonio; Milardi, Danilo; La Rosa, Carmelo.

In: European Journal of Medicinal Chemistry, Vol. 92, 06.03.2015, p. 876-881.

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

**Synthesis, characterization and solid-state photoluminescence studies of six alkoxy phenylene ethynylene dinuclear palladium(II) rods.** / Figueira, João; Czardybon, Wojciech; Mesquita, José Carlos; Rodrigues, João; Lahoz, Fernando; Russo, Luca; Valkonen, Arto; Rissanen, Kari.

In: DALTON TRANSACTIONS, Vol. 44, No. 9, 07.03.2015, p. 4003-4015.

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

**New perspectives on proton pumping in cellular respiration.** / Wikström, Mårten; Sharma, Vivek; Kaila, Ville R I; Hosler, Jonathan P.; Hummer, Gerhard.

In: Chemical Reviews, Vol. 115, No. 5, 11.03.2015, p. 2196-2221.

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

**CO oxidation catalyzed by neutral and anionic Cu<sub>20</sub> clusters : Relationship between charge and activity.** / Ma, Li; Melander, Marko; Laasonen, Kari; Akola, Jaakko.

In: Physical Chemistry Chemical Physics, Vol. 17, No. 10, 14.03.2015, p. 7067-7076.

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

**Oxidation of the GaAs semiconductor at the Al<sub>2</sub>O<sub>3</sub>/GaAs junction.** / Tuominen, Marjukka; Yasir, Muhammad; Lång, Jouko; Dahl, Johnny; Kuzmin, Mikhail; Mäkelä, Jaakko; Punkkinen, Marko; Laukkanen, Pekka; Kokko, Kalevi; Schulte, Karina; Punkkinen, Risto; Korpijärvi, Ville-Markus; Polojärvi, Ville; Guina, Mircea.

In: Physical Chemistry Chemical Physics, Vol. 17, No. 10, 14.03.2015, p. 7060-7066.

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

**High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a KCl-K<sub>2</sub>SO<sub>4</sub> salt mixture.** / Varis, T.; Bankiewicz, D.; Yrjas, P.; Oksa, M.; Suhonen, T.; Tuurna, S.; Ruusuvaori, K.; Holmström, S.

In: Surface and Coatings Technology, Vol. 265, 15.03.2015, p. 235-243.

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

**Tribology of HVOF- and HVAF-sprayed WC-10Co4Cr hardmetal coatings : A comparative assessment.** / Bolelli, G.; Berger, L. M.; Börner, T.; Koivuluoto, H.; Lusvardi, L.; Lyphout, C.; Markocsan, N.; Matikainen, V.; Nylén, P.; Sassatelli, P.; Trache, R.; Vuoristo, P.

In: Surface and Coatings Technology, Vol. 265, 15.03.2015, p. 125-144.

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

**Effects of fresh lubricant oils on particle emissions emitted by a modern gasoline direct injection passenger car.** / Pirjola, Liisa; Karjalainen, Panu; Heikkilä, Juha; Saari, Sampo; Tzamkiozis, Theodoros; Ntziachristos, Leonidas; Kulmala, Kari; Keskinen, Jorma; Rönkkö, Topi.

In: Environmental Science and Technology, Vol. 49, No. 6, 17.03.2015, p. 3644-3652.

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

**Effect of rheological properties of dissolved cellulose/microfibrillated cellulose blend suspensions on film forming.** / Saarikoski, Eve; Rissanen, Marja; Seppälä, Jukka.

In: Carbohydrate Polymers, Vol. 119, 30.03.2015, p. 62-70.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Oxidation of cholesterol does not alter significantly its uptake into high-density lipoprotein particles.** / Karilainen, Topi; Timr, Štěpán; Vattulainen, Ilpo; Jungwirth, Pavel.

In: Journal of Physical Chemistry Part B, Vol. 119, No. 13, 02.04.2015, p. 4594-4600.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Rate constant and thermochemistry for  $K + O_2 + N_2 = KO_2 + N_2$ .** / Sorvajärvi, Tapio; Viljanen, Jan; Toivonen, Juha; Marshall, Paul; Glarborg, Peter.

In: Journal of Physical Chemistry A, Vol. 119, No. 14, 09.04.2015, p. 3329-3336.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Workplace performance of a loose-fitting powered air purifying respirator during nanoparticle synthesis.** / Koivisto, Antti J.; Aromaa, Mikko; Koponen, Ismo K.; Fransman, Wouter; Jensen, Keld A.; Mäkelä, Jyrki M.; Hämeri, Kaarle J.

In: Journal of Nanoparticle Research, Vol. 17, No. 4, 09.04.2015.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Ergodicity breaking and particle spreading in noisy heterogeneous diffusion processes.** / Cherstvy, Andrey G.; Metzler, Ralf.

In: Journal of Chemical Physics, Vol. 142, No. 14, 144105, 14.04.2015.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Energy degradation in photoexcited complexes of indocarbocyanine with albumin.** / Kuzmin, V. A.; Durandin, N. A.; Lisitsyna, E. S.; Litvinkova, L. V.; Nekipelova, T. D.; Podrugina, T. A.; Matveeva, E. D.; Proskurnina, M. V.; Zefirov, N. S.

In: HIGH ENERGY CHEMISTRY, Vol. 49, No. 3, 01.05.2015, p. 211-212.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Multistep reactions of water with small  $Pd_n$  clusters : A first principles study.** / Liang, Yanhua; Ma, Li; Wang, Jianguang; Wang, Guanghou.

In: Journal of Theoretical and Computational Chemistry, Vol. 14, No. 3, 1550017, 01.05.2015.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Modeling photoionization of aqueous DNA and its components.** / Pluhařová, Eva; Slaviček, Petr; Jungwirth, Pavel.

In: Accounts of Chemical Research, Vol. 48, No. 5, 19.05.2015, p. 1209-1217.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Effect of melting state on the thermal shock resistance and thermal conductivity of APS  $ZrO_2$ -7.5wt.%  $Y_2O_3$  coatings.** / Song, Xuemei; Liu, Ziwei; Suhonen, Tomi; Varis, Tommi; Huang, Liping; Zheng, Xuebin; Zeng, Yi.

In: Surface and Coatings Technology, Vol. 270, 25.05.2015, p. 132-138.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Hydration of hydroxyl and amino groups examined by molecular dynamics and neutron scattering.** / Hladílková, Jana; Fischer, Henry E.; Jungwirth, Pavel; Mason, Philip E.

In: Journal of Physical Chemistry Part B, Vol. 119, No. 21, 28.05.2015, p. 6357-6365.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Spectral and kinetic characteristics of indotricarbocyanine complexation with albumin.** / Kuz'min, V. A.; Durandin, N. A.; Lisitsyna, E. S.; Nekipelova, T. D.; Podrugina, T. A.; Matveeva, E. D.; Proskurnina, M. V.; Zefirov, N. S.

In: DOKLADY PHYSICAL CHEMISTRY, Vol. 462, No. 1, 28.05.2015, p. 107-109.  
Research output: Contribution to journal > Article > Scientific > peer-review

**A facile route to synthesis of S-doped  $TiO_2$  nanoparticles for photocatalytic activity.** / McManamon, Colm; O'Connell, John; Delaney, Paul; Rasappa, Sozaraj; Holmes, Justin D.; Morris, Michael A.

In: Journal of Molecular Catalysis A: Chemical, Vol. 406, 30.05.2015, p. 51-57!  
Research output: Contribution to journal > Article > Scientific > peer-review

**Equipment for obtaining polymeric nanofibres by electrospinning technology : II. The obtaining of polymeric nanofibers.** / Manea, Liliana Rozemarie; Cramariuc, Bogdan; Popescu, Vasilica; Cramariuc, Radu; Sandu, Ion; Cramariuc, Oana.  
In: *Materiale Plastice*, Vol. 52, No. 2, 01.06.2015, p. 180-185.

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

**La thérapie photodynamique : État de l'art et perspectives.** / Frochot, Céline; Barberi-Heyob, Muriel; Blanchard-Desce, Mireille; Bolotine, Lina; Bonneau, Stéphanie; Jimenez, Chiara Mauriello; Durand, Jean Olivier; Lassalle, Henri Pierre; Lemercier, Gilles; Mordon, Serge; Maillard, Philippe; Sol, Vincent; Vever-Bizet, Christine; Vicendo, Patricia.  
In: *ACTUALITE CHIMIQUE*, No. 397-398, 01.06.2015, p. 46-50.

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

**Photodiagnostic et chirurgie guidés par la fluorescence.** / Mordon, Serge; Bourg-Heckly, Geneviève.  
In: *ACTUALITE CHIMIQUE*, No. 397-398, 01.06.2015, p. 41-45.

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

**Polymorph crystal packing effects on charge transfer emission in the solid state.** / He, Xiaoyan; Benniston, Andrew C.; Saarenpää, Hanna; Lemmetyinen, Helge; Tkachenko, Nikolai V.; Baisch, Ulrich.  
In: *Chemical Science*, Vol. 6, No. 6, 01.06.2015, p. 3525-3532.

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

**Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned pass substrates fabricated by nanoimprint lithography.** / Borah, Dipu; Rasappa, Sozaraj; Salaun, Mathieu; Zellsman, Marc; Lorret, Olivier; Lontos, George; Ntetsikas, Konstantinos; Avgeropoulos, Apostolos; Morris, Michael A.  
In: *Advanced Functional Materials*, Vol. 25, No. 22, 01.06.2015, p. 3425-3432.

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

**PEGylated liposomes as carriers of hydrophobic porphyrins.** / Dzieciuch, Monika; Rissanen, Sami; Szydłowska, Natalia; Bunker, Alex; Kumorek, Marta; Jamróz, Dorota; Vattulainen, Ilpo; Nowakowska, Maria; Róg, Tomasz; Kepczynski, Mariusz.

In: *Journal of Physical Chemistry Part B*, Vol. 119, No. 22, 04.06.2015, p. 6646-6657.

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

**Inverted critical adsorption of polyelectrolytes in confinement.** / De Carvalho, Sidney J.; Metzler, Ralf; Cherstvy, Andrey G.  
In: *Soft Matter*, Vol. 11, No. 22, 14.06.2015, p. 4430-4443.

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

**Catalytic effect of Ca and K on CO<sub>2</sub> gasification of spruce wood char.** / Perander, M.; DeMartini, N.; Brink, A.; Kramb, J.; Karlström, O.; Hemming, J.; Moilanen, A.; Konttinen, J.; Hupa, M.  
In: *Fuel*, Vol. 150, 15.06.2015, p. 464-472.

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

**Synthesis and Photophysical Properties of Two Diazaporphyrin-Porphyrin Hetero Dimers in Polar and Nonpolar Solutions.** / Abou-Chahine, Fawzi; Fujii, Daisuke; Imahori, Hiroshi; Nakano, Haruyuki; Tkachenko, Nikolai V.; Matano, Yoshihiro; Lemmetyinen, Helge.

In: *Journal of Physical Chemistry Part B*, Vol. 119, No. 24, 18.06.2015, p. 7328-7337.

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

**A comparison of rheology and FTIR in the study of polypropylene and polystyrene photodegradation.** / Mylläri, Ville; Ruoko, Tero-Petri; Syrjälä, Seppo.

In: *Journal of Applied Polymer Science*, Vol. 132, No. 28, 42246, 01.07.2015.

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

**On the biomaterials for nanostructured ocular therapeutics.** / Zorzi, Giovanni K.; Párraga, Jenny E.; Seijo, Begoña; Sánchez, Alejandro.

In: *Current Organic Chemistry*, Vol. 19, No. 15, 01.07.2015, p. 1443-1459.



**Optimal emission enhancement in orthogonal double-pulse laser-induced breakdown spectroscopy.** / Sanginés, R.; Contreras, V.; Sobral, H.; Robledo-Martinez, A.

In: *Spectrochimica Acta Part B: Atomic Spectroscopy*, Vol. 110, 4935, 06.07.2015, p. 139-145.

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

**Synthesis and study of electrochemical and optical properties of substituted perylenemonoimides in solutions and on solid surfaces.** / Ahmed, Zafar; George, Lijo; Hiltunen, Arto; Lemmetyinen, Helge; Hukka, Terttu; Efimov, Alexander.

In: *Journal of Materials Chemistry A*, Vol. 3, No. 25, 07.07.2015, p. 13332-13339.

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

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

Isoniemi, Tommi; Tuukkanen, Sampo; Cameron, David C.; Simonen, Janne; Toppari, J. Jussi.

In: *Organic Electronics*, Vol. 25, 09.07.2015, p. 317-323.

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

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

Hakkarainen, T. V.; Schramm, A.; Mäkelä, J.; Laukkanen, P.; Guina, M.

In: *Nanotechnology*, Vol. 26, No. 27, 275301, 18.07.2015.

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

**Electricity production by a microbial fuel cell fueled by brewery wastewater and the factors in its membrane deterioration.** / Çetinkaya, Afşin Y.; Köroğlu, Emre Oğuz; Demir, Neslihan Manav; Baysoy, Derya Yılmaz; Özkaya, Bestamin; Çakmakçı, Mehmet.

In: *Chinese Journal of Catalysis*, Vol. 36, No. 7, 20.07.2015, p. 1068-1076.

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

**Photoinduced Electron Transfer in CdSe/ZnS Quantum Dot-Fullerene Hybrids.** / Virkki, Kirsi; Demir, Sinem; Lemmetyinen, Helge; Tkachenko, Nikolai V.

In: *Journal of Physical Chemistry C*, Vol. 119, No. 31, 23.07.2015, p. 17561-17572.

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

**Role of Internal Water on Protein Thermal Stability : The Case of Homologous G Domains.** / Rahaman, Obaidur; Kalimeri, Maria; Melchionna, Simone; Hénin, Jérôme; Sterpone, Fabio.

In: *Journal of Physical Chemistry Part B*, Vol. 119, No. 29, 23.07.2015, p. 8939-8949.

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

**Quantifying non-ergodic dynamics of force-free granular gases.** / Bodrova, Anna; Checkin, Aleksei V.; Cherstvy, Andrey G.; Metzler, Ralf.

In: *Physical Chemistry Chemical Physics*, Vol. 17, No. 34, 27.07.2015, p. 21791-21798.

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

**High quality sub-10 nm graphene nanoribbons by on-chip PS-b-PDMS block copolymer lithography.** / Rasappa, Sozaraj; Caridad, José M.; Schulte, Lars; Cagliani, Alberto; Borah, Dipu; Morris, Michael A.; Bøggild, Peter; Ndoni, Sokol.

In: *RSC Advances*, Vol. 5, No. 82, 29.07.2015, p. 66711-66717.

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

**Nonlinear Optical Properties of Fluorescent Dyes Allow for Accurate Determination of Their Molecular Orientations in Phospholipid Membranes.** / Timr, Štěpán; Brabec, Jiří; Bondar, Alexey; Ryba, Tomáš; Železný, Miloš; Lazar, Josef; Jungwirth, Pavel.

In: *Journal of Physical Chemistry Part B*, Vol. 119, No. 30, 30.07.2015, p. 9706-9716.

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

**Responsive Polymer Photonics.** / Stumpel, Jelle E.

In: *ChemistryOpen*, Vol. 4, No. 4, 01.08.2015, p. 533-535.

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

**Formation and stability of carbon nanotube network in natural rubber : Effect of non-rubber components.** / Le, H. H.; Pham, T.; Henning, S.; Klehm, J.; Wießner, S.; Stöckelhuber, K. W.; Das, A.; Hoang, X. T.; Do, Q. K.; Wu, M.; Vennemann, N.; Heinrich, G.; Radusch, H. J.

In: *Polymer*, Vol. 73, 18004, 05.08.2015, p. 111-121.

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

**Effect of Phosphatidic Acid on Biomembrane : Experimental and Molecular Dynamics Simulations Study.** / Kwolek, Urszula; Kulig, Waldemar; Wydro, Paweł; Nowakowska, Maria; Róg, Tomasz; Kepczynski, Mariusz.

In: *Journal of Physical Chemistry Part B*, Vol. 119, No. 31, 06.08.2015, p. 10042-10051.

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

**Influence of relative humidity and physical load during storage on dustiness of inorganic nanomaterials : implications for testing and risk assessment.** / Levin, Marcus; Rojas, Elena; Vanhala, Esa; Vippola, Minnamari; Liguori, Biase; Kling, Kirsten I.; Koponen, Ismo K.; Mølhav, Kristian; Tuomi, Timo; Gregurec, Danijela; Moya, Sergio; Jensen, Keld A.

In: *Journal of Nanoparticle Research*, Vol. 17, No. 8, 337, 14.08.2015.

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

**Electrospun Black Titania Nanofibers : Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance.** / Lepcha, A.; Maccato, C.; Mettenbörger, A.; Andreu, T.; Mayrhofer, L.; Walter, M.; Olthof, S.; Ruoko, T. P.; Klein, A.; Moseler, M.; Meerholz, K.; Morante, J. R.; Barreca, D.; Mathur, S.

In: *Journal of Physical Chemistry C*, Vol. 119, No. 33, 20.08.2015, p. 18835-18842.

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

**Effects of thinning and heating for TiO<sub>2</sub>/AlInP junctions.** / Mäkelä, J.; Tuominen, M.; Yasir, M.; Polojärvi, V.; Aho, A.; Tukiainen, A.; Kuzmin, M.; Punkkinen, M. P. J.; Laukkanen, P.; Kokko, K.; Guina, M.

In: *Journal of Electron Spectroscopy and Related Phenomena*, Vol. 205, 24.08.2015, p. 6-9.

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

**Fe<sub>2</sub>O<sub>3</sub>-TiO<sub>2</sub> nanosystems by a hybrid PE-CVD/ALD approach : controllable synthesis, growth mechanism, and photocatalytic properties.** / Barreca, Davide; Carraro, Giorgio; Warwick, Michael E A; Kaunisto, Kimmo; Gasparotto, Alberto; Gombac, Valentina; Sada, Cinzia; Turner, Stuart; Van Tendeloo, Gustaaf; Maccato, Chiara; Fornasiero, Paolo.

In: *CrystEngComm*, Vol. 17, No. 32, 28.08.2015, p. 6219-6226.

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

**How large are nonadiabatic effects in atomic and diatomic systems?** / Yang, Yubo; Kylänpää, Ilkka; Tubman, Norm M.; Krogel, Jaron T.; Hammes-Schiffer, Sharon; Ceperley, David M.

In: *Journal of Chemical Physics*, Vol. 143, No. 12, 124308, 09.2015.

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

**Searching for a robust strategy for minimizing alkali chlorides in fluidized bed boilers during burning of high SRF-energy-share fuel.** / Bajamundi, Cyril Jose E; Vainikka, Pasi; Hedman, Merja; Silvennoinen, Jaani; Heinanen, Teemu; Taipale, Raili; Kontinen, Jukka.

In: *Fuel*, Vol. 155, 01.09.2015, p. 25-36.

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

**Unintentional boron contamination of MBE-grown GaInP/AlGaInP quantum wells.** / Tukiainen, Antti; Likonen, Jari; Toikkanen, Lauri; Leinonen, Tomi.

In: *Journal of Crystal Growth*, Vol. 425, 01.09.2015, p. 60-63.

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

**Measuring synthesis yield in graphene oxide synthesis by modified hummers method.** / Frankberg, Erkki J.; George, Lijo; Efimov, Alexander; Honkanen, Mari; Pessi, Jenni; Levänen, Erkki.

In: *Fullerenes Nanotubes and Carbon Nanostructures*, Vol. 23, No. 9, 02.09.2015, p. 755-759.

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

**Molecular Design of Light-Responsive Hydrogels, for in Situ Generation of Fast and Reversible Valves for Microfluidic Applications.** / Ter Schiphorst, Jeroen; Coleman, Simon; Stumpel, Jelle E.; Ben Azouz, Aymen; Diamond, Dermot; Schenning, Albertus P. H. J.

In: Chemistry of Materials, Vol. 27, No. 17, 08.09.2015, p. 5925-5931.

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

**Superatom Model for Ag-S Nanocluster with Delocalized Electrons.** / Goh, Jing Qiang; Akola, Jaakko.

In: Journal of Physical Chemistry C, Vol. 119, No. 36, 10.09.2015, p. 21165-21172.

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

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

Milanti, A.; Matikainen, V.; Koivuluoto, H.; Bolelli, G.; Lusvarghi, L.; Vuoristo, P.

In: Surface and Coatings Technology, Vol. 277, 15.09.2015, p. 81-90.

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

**Construction of an Interconnected Nanostructured Carbon Black Network : Development of Highly Stretchable and Robust Elastomeric Conductors.** / Bhagavatheswaran, Eshwaran Subramani; Parsekar, Meenali; Das, Amit; Le, Hai Hong; Wiessner, Sven; Stöckelhuber, Klaus Werner; Schmaucks, Gerd; Heinrich, Gert.

In: Journal of Physical Chemistry C, Vol. 119, No. 37, 17.09.2015, p. 21723-21731.

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

**PIP2 and Talin Join Forces to Activate Integrin.** / Orłowski, Adam; Kukkurainen, Sampo; Pöyry, Annika; Rissanen, Sami; Vattulainen, Ilpo; Hytönen, Vesa P.; Róg, Tomasz.

In: Journal of Physical Chemistry Part B, Vol. 119, No. 38, 24.09.2015, p. 12381-12389.

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

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

Moradi, Mahmoud; Enkavi, Giray; Tajkhorshid, Emad.

In: Nature Communications, Vol. 6, 8393, 29.09.2015.

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

**Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles.** / Mylläri, Ville; Fatarella, Enrico; Ruzzante, Marco; Pogni, Rebecca; Baratto, Maria Camilla; Skrifvars, Mikael; Syrjälä, Seppo; Järvelä, Pentti.

In: Journal of Applied Polymer Science, Vol. 132, No. 39, 42595, 01.10.2015.

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

**In Situ Photocontrol of Block Copolymer Morphology during Dip-Coating of Thin Films.** / Vapaavuori, Jaana; Grosrenaud, Josué; Pellerin, Christian; Bazuin, C. Geraldine.

In: ACS Macro Letters, Vol. 4, No. 10, 20.10.2015, p. 1158-1162.

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

**Photomechanical Energy Transfer to Photopassive Polymers through Hydrogen and Halogen Bonds.** / Vapaavuori, Jaana; Heikkinen, Ismo T S; Dichiarante, Valentina; Resnati, Giuseppe; Metrangolo, Pierangelo; Sabat, Ribal Georges; Bazuin, C. Geraldine; Priimagi, Arri; Pellerin, Christian.

In: Macromolecules, Vol. 48, No. 20, 27.10.2015, p. 7535-7542.

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

**Submolecular Plasticization Induced by Photons in Azobenzene Materials.** / Vapaavuori, Jaana; Laventure, Audrey; Bazuin, C. Geraldine; Lebel, Olivier; Pellerin, Christian.

In: Journal of the American Chemical Society, Vol. 137, No. 42, 28.10.2015, p. 13510-13517.

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

**Comparison of different cationized proteins as biomaterials for nanoparticle-based ocular gene delivery.** / Zorzi, Giovanni K.; Párraga, Jenny E.; Seijo, Begoña; Sanchez, Alejandro.

In: Colloids and Surfaces B: Biointerfaces, Vol. 135, 01.11.2015, p. 533-541.

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.; Radosch, H. J.

In: Express Polymer Letters, Vol. 9, No. 11, 01.11.2015, p. 960-971.

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

**Tri-functionality of Fe<sub>3</sub>O<sub>4</sub>-embedded carbon microparticles in microalgae harvesting.** / Seo, Jung Yoon; Lee, Kyubock; Ramasamy, Praveenkumar; Kim, Bohwa; Lee, So Yeun; Oh, You Kwan; Park, Seung Bin.

In: Chemical Engineering Journal, Vol. 280, 05.11.2015, p. 206-214.

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

**Graphene-intercalated Fe<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> 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.

In: RSC Advances, Vol. 5, No. 123, 13.11.2015, p. 101401-101407.

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.** / Ihalainen, Teemu O.; Aires, Lina; Herzog, Florian A.; Schwartlander, Ruth; Moeller, Jens; Vogel, Viola.

In: Nature Materials, Vol. 14, No. 12, 01.12.2015, p. 1252-1261.

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.

In: Chemical Engineering Science, Vol. 137, 01.12.2015, p. 515-524.

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

**Synthesis, crystal structure, physico-chemical characterization and dielectric properties of a new hybrid material, 1-Ethylpiperazine-1,4-dium tetrachlorocadmate.** / Dhieb, A. C.; Valkonen, A.; Rzaigui, M.; Smirani, W.

In: Journal of Molecular Structure, Vol. 1102, 15.12.2015, p. 50-56.

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

**The formation and physical properties of the particle emissions from a natural gas engine.** / Alanen, Jenni; Saukko, Erkka; Lehtoranta, Kati; Murtonen, Timo; Timonen, Hilikka; Hillamo, Risto; Karjalainen, Panu; Kuuluvainen, Heino; Harra, Juha; Keskinen, Jorma; Rönkkö, Topi.

In: Fuel, Vol. 162, 15.12.2015, p. 155-161.

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. 2015 IEEE SENSORS - Proceedings. Institute of Electrical and Electronics Engineers Inc., 2015. 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.

2015 IEEE SENSORS - Proceedings. Institute of Electrical and Electronics Engineers Inc., 2015. 7370300.

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

**Alginate microgels created by selective coalescence between core drops paired with an ultrathin shell.** / Lee, Tae Yong; Ramasamy, Praveenkumar; Oh, You Kwan; Lee, Kyubock; Kim, Shin Hyun.

In: Journal of Materials Chemistry B, Vol. 4, No. 19, 2016, p. 3232-3238.

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

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

Santos, Fábio M F; Rosa, João N.; Candeias, Nuno R.; Carvalho, Cátia Parente; Matos, Ana I.; Ventura, Ana E.; Florindo, Helena F.; Silva, Liana C.; Pischel, Uwe; Gois, Pedro M P.

In: Chemistry: A European Journal, Vol. 22, No. 5, 2016, p. 1631-1637.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Cholesterol oxidation products and their biological importance.** / Kulig, Waldemar; Cwiklik, Lukasz; Jurkiewicz, Piotr; Rog, Tomasz; Vattulainen, Ilpo.

In: Chemistry and Physics of Lipids, Vol. 199, 2016, p. 144-160.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method.** / Bansod, Naresh D.; Kapgate, Bharat P.; Das, Chayan; Das, Amit; Basu, Debdipta; Debnath, Subhas Chandra.

In: JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, Vol. 80, No. 2, 2016, p. 548-559.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Controllable Electronic Structures and Photoinduced Processes of Bay-Linked Peryleneimide Dimers and a Ferrocene-Linked Triad.** / Horinouchi, Haruki; Sakai, Hayato; Araki, Yasuyuki; Sakanoue, Tomo; Takenobu, Taishi; Wada, Takehiko; Tkachenko, Nikolai V.; Hasobe, Taku.

In: Chemistry: A European Journal, Vol. 22, No. 28, 2016, p. 9631-9641.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Decoding the Morphological Diversity in Two Dimensional Crystalline Porous Polymers by Core Planarity Modulation.** /

Halder, Arjun; Kandambeth, Sharath; Biswal, Bishnu P.; Kaur, Gagandeep; Roy, Neha Chaki; Addicoat, Matthew; Salunke, Jagadish K.; Banerjee, Subhrashis; Vanka, Kumar; Heine, Thomas; Verma, Sandeep; Banerjee, Rahul.

In: Angewandte Chemie (International Edition), Vol. 55, No. 27, 2016, p. 7806-7810.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Enhanced adsorption of orthophosphate and copper onto hydrochar derived from sewage sludge by KOH activation.** /

Spataru, Ana; Jain, Rohan; Chung, Jae Wook; Gerner, Gabriel; Krebs, Rolf; Lens, Piet N. L.

In: RSC Advances, Vol. 6, No. 104, 2016, p. 101827-101834.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Fire-safe and environmentally friendly nanocomposites based on layered double hydroxides and ethylene propylene diene elastomer.** / Basu, Debdipta; Das, Amit; Wang, De Yi; George, Jinu Jacob; Stöckelhuber, Klaus Werner; Boldt, Regine; Leuteritz, Andreas; Heinrich, Gert.

In: RSC Advances, Vol. 6, No. 31, 2016, p. 26425-26436.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Heat capacities of crystalline and glassy lithium metaphosphate up to the transition region.** / Rocherullé, J.; Massera, J.; Oudadesse, H.; Calvez, L.; Trolès, J.; Zhang, X. H.

In: Journal of Thermal Analysis and Calorimetry, Vol. 123, No. 1, 2016, p. 401-407.  
Research output: Contribution to journal › Article › Scientific › peer-review

**High-Yield Excited Triplet States in Pentacene Self-Assembled Monolayers on Gold Nanoparticles through Singlet Exciton Fission.** / Kato, Daiki; Sakai, Hayato; Tkachenko, Nikolai V.; Hasobe, Taku.

In: Angewandte Chemie (International Edition), Vol. 55, No. 17, 2016, p. 5230-5234.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Nanoscale barrier coating on BOPP packaging film by ALD.** / Lahti, Johanna.

TAPPI PLACE Conference 2016: Exploring New Frontiers. TAPPI Press, 2016. p. 493-505.

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

**Nonlinear transmittance and optical power limiting in magnesium ferrite nanoparticles : effects of laser pulsewidth and particle size.** / Perumbilavil, Sreerkanth; Sridharan, Kishore; Abraham, Ann Rose; Janardhanan, Harsha P.; Kalarikkal, Nandakumar; Philip, Reji.

In: RSC Advances, Vol. 6, No. 108, 2016, p. 106754-106761.  
Research output: Contribution to journal › Article › Scientific › peer-review

**On describing the optoelectronic characteristics of poly(benzodithiophene- : Co -quinoxaline)-fullerene complexes: The influence of optimally tuned density functionals.** / Kastinen, T.; Niskanen, M.; Risko, C.; Cramariuc, O.; Hukka, T. I.  
In: Physical Chemistry Chemical Physics, Vol. 18, No. 39, 2016, p. 27654-27670.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Optical non-contact pH measurement in cell culture with sterilizable, modular parts.** / Kattiparambil Rajan, Dhanesh; Patrikoski, Mimmi; Verho, Jarmo; Sivula, Jyrki; Ihalainen, Heimo; Miettinen, Susanna; Leikkala, Jukka.  
In: Talanta, Vol. 161, 2016, p. 755-761.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Photoresponsive liquid-crystalline polymer films bilayered with an inverse opal structure.** / Akamatsu, Norihisa; Aizawa, Miho; Tatsumi, Ryoichi; Hisano, Kyohei; Priimägi, Arri; Shishido, Atsushi.  
In: JOURNAL OF PHOTOPOLYMER SCIENCE AND TECHNOLOGY, Vol. 29, No. 1, 2016, p. 145-148.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Preferential adsorption of Cu in a multi-metal mixture onto biogenic elemental selenium nanoparticles.** / Jain, Rohan; Dominic, Domician; Jordan, Norbert; Rene, Eldon R.; Weiss, Stephan; van Hullebusch, Eric D.; Hübner, René; Lens, Piet N L.  
In: Chemical Engineering Journal, Vol. 284, 2016, 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, Tomohiro; Yamada, Tomoki; Yamamoto, Masanori; Furube, Akihiro; Tkachenko, Nikolai V.; Miura, Taku; Kobori, Yasuhiro; Jono, Ryota; Yamashita, Koichi; Imahori, Hiroshi.  
In: Angewandte Chemie (International Edition), Vol. 55, No. 2, 2016, p. 629-633.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Superfluorinated Ionic Liquid Crystals Based on Supramolecular, Halogen-Bonded Anions.** / Cavallo, Gabriella; Terraneo, Giancarlo; Monfredini, Alessandro; Saccone, Marco; Priimägi, Arri; Pilati, Tullio; Resnati, Giuseppe; Metrangolo, Pierangelo; Bruce, Duncan W.  
In: Angewandte Chemie (International Edition), Vol. 55, No. 21, 2016, p. 6300-6304.  
Research output: Contribution to journal > Article > Scientific > peer-review

**The electrooxidation-induced structural changes of gold di-superatomic molecules : Au<sub>23</sub> vs. Au<sub>25</sub>.** / Matsuo, Shota; Yamazoe, Seiji; Goh, Jing-Qiang; Akola, Jaakko; Tsukuda, Tatsuya.  
In: Physical Chemistry Chemical Physics, Vol. 18, No. 6, 2016, p. 4822-4827.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Thermal desorption of molecular oxygen from SnO<sub>2</sub> (110) surface : Insights from first-principles calculations.** / Golovanov, Viacheslav; Golovanova, Viktoria; Rantala, Tapio T.  
In: Journal of Physics and Chemistry of Solids, Vol. 89, 2016, p. 15-22.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Physical and Chemical Characterization of Real-World Particle Number and Mass Emissions from City Buses in Finland.** / Pirjola, Liisa; Dittrich, Aleš; Niemi, Jarkko V.; Saarikoski, Sanna; Timonen, Hilikka; Kuuluvainen, Heino; Järvinen, Anssi; Kousa, Anu; Rönkkö, Topi; Hillamo, Risto.  
In: Environmental Science and Technology, Vol. 50, No. 1, 05.01.2016, p. 294-304.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Guanidinium Pairing Facilitates Membrane Translocation.** / Allolio, Christoph; Baxova, Katarina; Vazdar, Mario; Jungwirth, Pavel.  
In: Journal of Physical Chemistry Part B, Vol. 120, No. 1, 14.01.2016, p. 143-153.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction.** / Ali-Löyty, Harri; Louie, Mary W.; Singh, Meenesh R.; Li, Lin; Sanchez Casalongue, Hernan G.; Ogasawara, Hirohito; Crumlin, Ethan J.; Liu, Zhi; Bell, Alexis T.; Nilsson, Anders; Friebel, Daniel.

In: Journal of Physical Chemistry C, Vol. 120, No. 4, 04.02.2016, p. 2247-2253.

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

**Phenothiazine and carbazole substituted pyrene based electroluminescent organic semiconductors for OLED devices.** / Salunke, Jagadish K.; Wong, F. L.; Feron, Krishna; Manzhos, Sergei; Lo, Ming Fai; Shinde, Durgaprasad; Patil, Abhijeet; Lee, C. S.; Roy, V. A L; Sonar, Prashant; Wadgaonkar, Prakash P.

In: Journal of Materials Chemistry C, Vol. 4, No. 5, 07.02.2016, p. 1009-1018.

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

**HPLC-SEC : a new approach to characterise complex wastewater effluents.** / Szabo, Hilda Marta; Lepistö, Raghida; Tuhkanen, Tuula.

In: International Journal of Environmental Analytical Chemistry, Vol. 96, No. 3, 19.02.2016, p. 257-270.

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

**Stability and Function at High Temperature. What Makes a Thermophilic GTPase Different from Its Mesophilic Homologue.** / Katava, Marina; Kalimeri, Maria; Stirnemann, Guillaume; Sterpone, Fabio.

In: Journal of Physical Chemistry Part B, Vol. 120, No. 10, 17.03.2016, p. 2721-2730.

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

**Long-Lived Triplet Excited States of Bent-Shaped Pentacene Dimers by Intramolecular Singlet Fission.** / Sakuma, Takao; Sakai, Hayato; Araki, Yasuyuki; Mori, Tadashi; Wada, Takehiko; Tkachenko, Nikolai V.; Hasobe, Taku.

In: Journal of Physical Chemistry A, Vol. 120, No. 11, 31.03.2016, p. 1867-1875.

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

**Metal chalcogenide quantum dots : Biotechnological synthesis and applications.** / Mal, J.; Nancharaiyah, Y. V.; Van Hullebusch, E. D.; Lens, P. N. L.

In: RSC Advances, Vol. 6, No. 47, 04.2016, p. 41477-41495.

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

**DFT simulations and microkinetic modelling of 1-pentyne hydrogenation on Cu<sub>20</sub> model catalysts.** / Ma, Li; Melander, Marko; Weckman, Timo; Lipasti, Saana; Laasonen, Kari; Akola, Jaakko.

In: Journal of Molecular Graphics and Modelling, Vol. 65, 01.04.2016, p. 61-70.

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

**Microwave assisted laser-induced breakdown spectroscopy at ambient conditions.** / Viljanen, Jan; Sun, Zhiwei; Alwahabi, Zeyad T.

In: Spectrochimica Acta Part B: Atomic Spectroscopy, Vol. 118, 01.04.2016, p. 29-36.

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

**Strain rate change tests with the Split Hopkinson Bar method.** / Isakov, M.; Kokkonen, J.; Östman, K.; Kuokkala, V.-T.

In: European Physical Journal. Special Topics, Vol. 225, No. 2, 01.04.2016, p. 231-242.

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

**Organic and Printed Electronics : Fundamentals and Applications.** / Nisato, Giovanni (Editor); Lupo, Donald (Editor); Ganz, Simone (Editor).

1 ed. Singapore : PAN STANFORD PUBLISHING, 2016. 580 p.

Research output: Book/Report > Anthology > Professional

**Coordination networks incorporating halogen-bond donor sites and azobenzene groups.** / Fernandez-Palacio, Francisco; Saccone, Marco; Priimägi, Arri; Terraneo, Giancarlo; Pilati, Tullio; Metrangolo, Pierangelo; Resnati, Giuseppe.

In: CrystEngComm, Vol. 18, No. 13, 07.04.2016, p. 2251-2257.

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

**Influence of heat treatment on the abrasive wear resistance of a Cr<sub>3</sub>C<sub>2</sub>NiCr coating deposited by an ethene-fuelled HVOF spray process.** / Janka, Leo; Norpoth, Jonas; Trache, Richard; Berger, Lutz Michael.

In: Surface and Coatings Technology, Vol. 291, 15.04.2016, p. 444-451.

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

**Effect of Hole Transporting Material on Charge Transfer Processes in Zinc Phthalocyanine Sensitized ZnO Nanorods. /**

Hakola, Hanna; Sariola-Leikas, Essi; Efimov, Alexander; Tkachenko, Nikolai V.

In: Journal of Physical Chemistry C, Vol. 120, No. 13, 21.04.2016, p. 7044-7051.

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

**Lipid-assisted protein transport : A diffusion-reaction model supported by kinetic experiments and molecular dynamics simulations. /**

La Rosa, Carmelo; Scalisi, Silvia; Lolicato, Fabio; Pannuzzo, Martina; Raudino, Antonio.

In: Journal of Chemical Physics, Vol. 144, No. 18, 184901, 14.05.2016.

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

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

Soto, Ana M.; Koivisto, Janne T.; Parraga, Jenny E.; Silva-Correia, Joana; Oliveira, Joaquim M.; Reis, Rui L.; Kellomäki, Minna; Hyttinen, Jari; Figueiras, Edite.

In: Langmuir, Vol. 32, No. 20, 24.05.2016, p. 5173-5182.

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

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

Isotahdon, Elisa; Huttunen-Saarivirta, Elina; Kuokkala, Veli-Tapani.

In: Corrosion, Vol. 72, No. 6, 01.06.2016, p. 732-741.

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

**Effect of incorporation of CdS NPs on performance of PTB7 : PCBM organic solar cells. /** Sharma, Ramakant; Bhalerao, Sagar; Gupta, Dipti.

In: Organic Electronics: physics, materials, applications, Vol. 33, 01.06.2016, p. 274-280.

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

**Robust statistical approaches for RSS-based floor detection in indoor localization. /** Razavi, Alireza; Valkama, Mikko; Lohan, Elena Simona.

In: Sensors, Vol. 16, No. 6, 793, 01.06.2016.

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

**Structurally Controlled Dynamics in Azobenzene-Based Supramolecular Self-Assemblies in Solid State. /** Poutanen, Mikko; Ikkala, Olli; Priimägi, Arri.

In: Macromolecules, Vol. 49, No. 11, 14.06.2016, p. 4095-4101.

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

**Spontaneous formation of three-dimensionally ordered Bi-rich nanostructures within GaAs<sub>1-x</sub>Bi<sub>x</sub>/GaAs quantum wells. /** Luna, E.; Wu, M.; Hanke, M.; Puustinen, J.; Guina, M.; Trampert, A.

In: Nanotechnology, Vol. 27, No. 32, 325603, 01.07.2016.

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

**The Influence of Phosphorus Exposure on a Natural-Gas-Oxidation Catalyst. /** Kärkkäinen, M.; Kolli, T.; Honkanen, M.; Heikkinen, O.; Väliheikki, A.; Huuhtanen, M.; Kallinen, K.; Lahtinen, J.; Vippola, M.; Keiski, R. L.

In: Topics in Catalysis, Vol. 59, No. 10-12, 01.07.2016, p. 1044-1048.

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. /**

Kapgate, Bharat P.; Das, Chayan; Das, Amit; Basu, Debdipta; Wiessner, Sven; Reuter, Uta; Heinrich, Gert.

In: Journal of Applied Polymer Science, Vol. 133, No. 30, 43717, 10.08.2016.

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

**Buckling Behavior of Cold-Formed Studs with Thermal Perforations. /** Garifullin, Marsel; Sinelnikov, Alexey; Bronzova, Maria; Kovacic, Boštjan; Kamnik, Rok.

In: MATEC Web of Conferences, Vol. 73, 04011, 11.08.2016.



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

**Detergent impurity effect on recycled HDPE : Properties after repetitive processing.** / Mylläri, Ville; Hartikainen, Samuel; Poliakov, Valeria; Anderson, Reetta; Jönkkäri, Ilari; Pasanen, Pertti; Andersson, Mirja; Vuorinen, Jyrki.

In: Journal of Applied Polymer Science, Vol. 133, No. 31, 43766, 15.08.2016.

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

**Designing of Elastomer Nanocomposites : From Theory to Application.** / Stöckelhuber, Klaus Werner (Editor); Das, Amit (Editor); Klüppel, Manfred (Editor).

Springer International Publishing, 2016. (Advances in Polymer Science; Vol. 275).

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

**Nanostructured Ionomeric Elastomers.** / Basu, Debdipta; Das, Amit; Stöckelhuber, Klaus Werner; Wießner, Sven.

Designing of Elastomer Nanocomposites: From Theory to Applications. ed. / Klaus Werner Stöckelhuber; Amit Das; Manfred Klüppel. Springer International Publishing, 2016. p. 235-266 (Advances in Polymer Science; Vol. 275).

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

**3D micro-nano structured hybrid scaffolds : An investigation into the role of nanofiber coating on viability, proliferation and differentiation of seeded mesenchymal stem cells.** / Pilehrood, Mohammad Kazemi; Atashi, Amir; Sadeghi-Aliabadi, Hojjat; Nousiainen, Pertti; Harlin, Ali.

In: Journal Nanoscience and Nanotechnology, Vol. 16, No. 9, 01.09.2016, p. 9000-9007.

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

**Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers.** / Robison, Aaron D.; Sun, Simou; Poyton, Matthew F.; Johnson, Gregory A.; Pellois, Jean Philippe; Jungwirth, Pavel; Vazdar, Mario; Cremer, Paul S.

In: Journal of Physical Chemistry Part B, Vol. 120, No. 35, 08.09.2016, p. 9287-9296.

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

**Controlling the motion of multiple objects on a Chladni plate.** / Zhou, Quan; Sariola, Veikko; Latifi, Kourosh; Liimatainen, Ville.

In: Nature Communications, Vol. 7, 12764, 09.09.2016.

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

**Elimination of arsenic-containing emissions from gasification of chromated copper arsenate wood.** / Kramb, Jason; Kontinen, Jukka; Backman, Rainer; Salo, Kari; Roberts, Michael.

In: Fuel, Vol. 181, 01.10.2016, p. 319-324.

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

**Increased survival rate by local release of diclofenac in a murine model of recurrent oral carcinoma.** / Will, Olga Maria; Purcz, Nicolai; Chalaris, Athena; Heneweer, Carola; Boretius, Susann; Purcz, Larissa; Nikkola, Lila; Ashammakhi, Nureddin; Kalthoff, Holger; Glüer, Claus Christian; Wiltfang, Jörg; Açil, Yahya; Tiwari, Sanjay.

In: International Journal of Nanomedicine, Vol. 11, 12.10.2016, p. 5311-5321.

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

**Grain orientation dependent Nb-Ti microalloying mediated surface segregation on ferritic stainless steel.** / Ali-Löytty, Harri; Hannula, Markku; Honkanen, Mari; Östman, Kauko; Lahtonen, Kimmo; Valden, Mika.

In: Corrosion Science, Vol. 112, 11.2016, p. 204-213.

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

**UPS and DFT investigation of the electronic structure of gas-phase trimesic acid.** / Reisberg, L.; Pärna, R.; Kikas, A.; Kuusik, I.; Kisand, V.; Hirsimäki, M.; Valden, M.; Nõmmiste, E.

In: Journal of Electron Spectroscopy and Related Phenomena, Vol. 213, 11.2016, p. 11-16.

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

**Improvement of actuation performance of dielectric elastomers by barium titanate and carbon black fillers.** / Poikelispää, Minna; Shakun, Alexandra; Das, Amit; Vuorinen, Jyrki.  
In: Journal of Applied Polymer Science, Vol. 133, No. 42, 44116, 10.11.2016.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Collective excitations and viscosity in liquid Bi.** / Ropo, Matti; Akola, Jaakko; Jones, Robert O.  
In: Journal of Chemical Physics, Vol. 145, No. 18, 184502, 14.11.2016.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Optimization of HVOF Cr<sub>3</sub>C<sub>2</sub>-NiCr coating for increased fatigue performance.** / Varis, T.; Suhonen, T.; Calonius, O.; Čuban, J.; Pietola, M.  
In: Surface and Coatings Technology, Vol. 305, 15.11.2016, p. 123-131.  
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.** / Ntziachristos, L.; Saukko, E.; Lehtoranta, K.; Rönkkö, T.; Timonen, H.; Simonen, P.; Karjalainen, P.; Keskinen, J.  
In: Fuel, Vol. 186, 15.12.2016, p. 456-465.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Crystallization and sintering of borosilicate bioactive glasses for application in tissue engineering.** / Fabert, M.; Ojha, N.; Erasmus, E.; Hannula, M.; Hokka, M.; Hyttinen, J.; Rocherullé, J.; Sigalas, I.; Massera, J.  
In: Journal of Materials Chemistry B, Vol. 5, No. 23, 2017, p. 4514-4525.  
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, Aidin Alinezhad; Naghashzadegan, Mohammad; Javaherdeh, Kourosh; Khoshgoftar, Mohammadreza.  
In: International Journal of Photoenergy, Vol. 2017, 4210184, 2017.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Effects of orientation at the phthalocyanine-CdSe interface on the electron transfer characteristics.** / Golovanov, V. V.; Nazarchuk, B. V.; Golovanova, V. V.; Tkachenko, N. V.; Rantala, T. T.  
In: Physical Chemistry Chemical Physics, Vol. 19, No. 16, 2017, p. 10511-10517.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Fluorescence spectroscopy "knife" for polyplex "cakes": taste the filling.** / Vuorimaa-Laukkanen, Elina; Lisitsyna, Ekaterina S.; Ketola, Tiia-Maaria; Morin-Pickardat, Emmanuelle; Liang, Huamin; Hanzlikova, Martina; Urtti, Arto; Yliperttula, Marjo L.; Lisitsyna, Ekaterina; Laaksonen, Timo.  
2017. Paper presented at 30 Years of Drug Delivery Research, Kuopio, Finland.  
Research output: Other conference contribution › Paper, poster or abstract › Scientific

**High-resolution coded-aperture design for compressive X-ray tomography using low resolution detectors.** / Mojica, Edson; Pertuz, Said; Arguello, Henry.  
In: Optics Communications, Vol. 404, 2017, p. 103-109.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Improved corrosion properties of Hot Dip Galvanized Steel by nanomolecular silane layers as hybrid interface between zinc and top coatings.** / Vuori, Leena; Ali-Löytty, Harri; Lahtonen, Kimmo; Hannula, Markku; Lehtonen, Elina; Niu, Yuran; Valden, Mika.  
In: Corrosion, Vol. 73, No. 2, 2017.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Liquid flame spray—a hydrogen-oxygen flame based method for nanoparticle synthesis and functional nanocoatings.** / Mäkelä, Jyrki M.; Haapanen, Janne; Harra, Juha; Juuti, Paxton; Kujanpää, Sonja.  
In: KONA POWDER AND PARTICLE JOURNAL, Vol. 2017, No. 34, 2017, p. 141-154.  
Research output: Contribution to journal › Review Article › Scientific › peer-review

**Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems.** / Baek, Jinseok; Umeyama, Tomokazu; Mizuno, Satoshi; Tkachenko, Nikolai V.; Imahori, Hiroshi.

In: Journal of Physical Chemistry C, Vol. 121, No. 39, 2017.

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, Marco; Palacio, Francisco Fernandez; Cavallo, Gabriella; Dichiarante, Valentina; Virkki, Matti; Terraneo, Giancarlo; Priimagi, Arri; Metrangolo, Pierangelo.

In: Faraday Discussions, Vol. 203, 2017, p. 407-422.

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

**Supramolecular control of liquid crystals by doping with halogen-bonding dyes.** / Vapaavuori, Jaana; Siiskonen, Antti; Dichiarante, Valentina; Forni, Alessandra; Saccone, Marco; Pilati, Tullio; Pellerin, Christian; Shishido, Atsushi; Metrangolo, Pierangelo; Priimagi, Arri.

In: RSC Advances, Vol. 7, No. 64, 2017, p. 40237-40242.

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

**Synthesis, Structural Characterization, Hirshfeld Surface and Antioxidant Activity Analysis of a Novel Organic Cation Antimonate Complex.** / Lahbib, Ikram; Valkonen, Arto; Rzaigui, Mohamed; Smirani, Wajda.

In: Journal of Cluster Science, Vol. 28, No. 4, 2017, p. 2239-2252.

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

**Two cations, two mechanisms : Interactions of sodium and calcium with zwitterionic lipid membranes.** / Javanainen, Matti; Melcrová, Adéla; Magarkar, Aniket; Jurkiewicz, Piotr; Hof, Martin; Jungwirth, Pavel; Martinez-Seara, Hector.

In: Chemical Communications, Vol. 53, No. 39, 2017, p. 5380-5383.

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

**Architectures and codecs for real-time light field streaming.** / Kovács, Péter Tamás; Zare, Alireza; Balogh, Tibor; Bregovic, Robert; Gotchev, Atanas.

In: Journal of Imaging Science and Technology, Vol. 61, No. 1, 010403, 01.01.2017.

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, Esa.

16th TAPPI European PLACE Conference 2017. TAPPI Press, 2017. p. 529-544.

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

**Novel bio-based materials for active and intelligent packaging.** / Lahti, Johanna; Kamppuri, Taina; Kuusipalo, Jurkka.

16th TAPPI European PLACE Conference 2017. TAPPI Press, 2017.

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

**Novel equipment to simulate hot air heat sealability of packaging materials.** / Lahti, Johanna; Kuusipalo, Jurkka; Auvinen, Sanna.

16th TAPPI European PLACE Conference 2017. TAPPI Press, 2017. p. 237-248.

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.** / Kuusipalo, Jurkka; Lahti, Johanna.

16th TAPPI European PLACE Conference 2017: Basel; Switzerland; 22 May 2017 through 24 May 2017. Vol. May-2017 TAPPI Press, 2017.

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

**Polarization resolved photoluminescence in GaAs<sub>1-x</sub>Bi<sub>x</sub>/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.

In: Journal of Luminescence, Vol. 182, 02.2017, p. 49-52.

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

**Benchmarking DFT methods with small basis sets for the calculation of halogen-bond strengths.** / Siiskonen, Antti; Priimägi, Arri.

In: Journal of Molecular Modeling, Vol. 23, No. 2, 50, 01.02.2017.

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

**Magnetic routing of light-induced waveguides.** / Izdebskaya, Yana; Shvedov, Vladlen; Assanto, Gaetano; Krolikowski, Wieslaw.

In: Nature Communications, Vol. 8, 14452, 15.02.2017.

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

**Membrane cholesterol access into a G-protein-coupled receptor.** / Guixà-González, Ramon; Albasanz, José L.; Rodríguez-Espigares, Ismael; Pastor, Manuel; Sanz, Ferran; Martí-Solano, Maria; Manna, Moutusi; Martínez-Seara, Hector; Hildebrand, Peter W.; Martín, Mairena; Selent, Jana.

In: Nature Communications, Vol. 8, 14505, 21.02.2017.

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

**Hierarchical Self-Assembly of Halogen-Bonded Block Copolymer Complexes into Upright Cylindrical Domains.** / Milani, Roberto; Houbenov, Nikolay; Fernandez-Palacio, Francisco; Cavallo, Gabriella; Luzio, Alessandro; Haataja, Johannes; Giancane, Gabriele; Saccone, Marco; Priimägi, Arri; Metrangolo, Pierangelo; Ikkala, Olli.

In: Chem, Vol. 2, No. 3, 09.03.2017, p. 417-426.

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

**Calcium Directly Regulates Phosphatidylinositol 4,5-Bisphosphate Headgroup Conformation and Recognition.** / Bilkova, Eva; Pleskot, Roman; Rissanen, Sami; Sun, Simou; Czogalla, Aleksander; Cwiklik, Lukasz; Róg, Tomasz; Vattulainen, Ilpo; Cremer, Paul S.; Jungwirth, Pavel; Coskun, Ünal.

In: Journal of the American Chemical Society, Vol. 139, No. 11, 22.03.2017, p. 4019-4024.

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

**Hexaphyrin as a Potential Theranostic Dye for Photothermal Therapy and <sup>19</sup>F Magnetic Resonance Imaging.** / Higashino, Tomohiro; Nakatsuji, Hirotaka; Fukuda, Ryosuke; Okamoto, Haruki; Imai, Hirohiko; Matsuda, Tetsuya; Tochio, Hidehito; Shirakawa, Masahiro; Tkachenko, Nikolai V.; Hashida, Mitsuru; Murakami, Tatsuya; Imahori, Hiroshi.

In: ChemBioChem, Vol. 18, No. 10, 24.03.2017, p. 951-959.

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

**Elucidation of Compression-Induced Surface Crystallization in Amorphous Tablets Using Sum Frequency Generation (SFG) Microscopy.** / Mah, Pei T.; Novakovic, Dunja; Saarinen, Jukka; van Landeghem, Stijn; Peltonen, Leena; Laaksonen, Timo; Isomäki, Antti; Strachan, Clare J.

In: Pharmaceutical Research, Vol. 34, No. 5, 05.2017, p. 957-970.

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, Mari; Hansen, Thomas W.; Jiang, Hua; Kärkkäinen, Marja; Huuhtanen, Mika; Heikkinen, Olli; Kallinen, Kauko; Lahtinen, Jouko; Keiski, Riitta L.; Wagner, Jakob B.; Vippola, Minnamari.

In: Journal of Catalysis, Vol. 349, 01.05.2017, p. 19-29.

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

**Photoinduced Electron Injection from Zinc Phthalocyanines into Zinc Oxide Nanorods : Aggregation Effects.** / Virkki, Kirsi; Hakola, Hanna; Urbani, Maxence; Tejerina, Lara; Ince, Mine; Martínez-Díaz, M. Victoria; Torres, Tomás; Golovanova, Viktoria; Golovanov, Viacheslav; Tkachenko, Nikolai V.

In: Journal of Physical Chemistry C, Vol. 121, No. 17, 04.05.2017, p. 9594-9605.

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

**The effects of calcium and potassium on CO<sub>2</sub> gasification of birch wood in a fluidized bed.** / Kramb, Jason; Gómez-Barea, Alberto; DeMartini, Nikolai; Romar, Henrik; Döddapaneni, Tharaka Rama K. C.; Konttinen, Jukka.

In: Fuel, Vol. 196, 15.05.2017, p. 398-407.

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

**Density functional study of structure and dynamics in liquid antimony and  $Sb_n$  clusters.** / Jones, R. O.; Ahlstedt, O.; Akola, J.; Ropo, M.

In: *Journal of Chemical Physics*, Vol. 146, No. 19, 194502, 21.05.2017.

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

**Nematicon-enhanced spontaneous symmetry breaking.** / Piccardi, A.; Alberucci, A.; Kravets, N.; Buchnev, O.; Assanto, G.

In: *Molecular Crystals and Liquid Crystals*, Vol. 649, No. 1, 24.05.2017, p. 59-65.

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

**Catalytic Activity of AuCu Clusters on MgO(100) : Effect of Alloy Composition for CO Oxidation.** / Ma, Li; Laasonen, Kari; Akola, Jaakko.

In: *Journal of Physical Chemistry C*, Vol. 121, No. 20, 25.05.2017, p. 10876-10886.

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

**Geometric Structure and Chemical Ordering of Large AuCu Clusters : A Computational Study.** / Goh, Jing-Qiang; Akola, Jaakko; Ferrando, Riccardo.

In: *Journal of Physical Chemistry C*, Vol. 121, No. 20, 25.05.2017, p. 10809-10816.

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

**Comparison of starch and gelatin hydrogels for non-toxic supercapacitor electrolytes.** / Railanmaa, Anna; Lehtimäki, Suvi; Lupo, Donald.

In: *Applied Physics A-Materials Science and Processing*, Vol. 123, No. 6, 459, 01.06.2017.

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

**Long-Range Observation of Exciplex Formation and Decay Mediated by One-Dimensional Bridges.** / Baek, Jinseok; Umeyama, Tomokazu; Stranius, Kati; Yamada, Hiroki; Tkachenko, Nikolai V.; Imahori, Hiroshi.

In: *Journal of Physical Chemistry C*, Vol. 121, No. 25, 29.06.2017, p. 13952-13961.

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

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

Nogueira, Idelfonso B.R.; Ribeiro, Ana M.; Martins, Márcio A.F.; Rodrigues, Alírio E.; Koivisto, Hannu; Loureiro, José M.

In: *Journal of Chromatography A*, Vol. 1504, 30.06.2017.

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

**Electropolymerized polyazulene as active material in flexible supercapacitors.** / Suominen, Milla; Lehtimäki, Suvi; Yewale, Rahul; Damlin, Pia; Tuukkanen, Sampo; Kvarnström, Carita.

In: *Journal of Power Sources*, Vol. 356, 15.07.2017, p. 181-190.

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

**Configurational Disorder of Water Hydrogen-Bond Network at the Protein Dynamical Transition.** / Rahaman, Obaidur;

Kalimeri, Maria; Katava, Marina; Paciaroni, Alessandro; Sterpone, Fabio.

In: *Journal of Physical Chemistry Part B*, Vol. 121, No. 28, 20.07.2017, p. 6792-6798.

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

**Vegetable fillers for electric stimuli responsive elastomers.** / Poikelispää, Minna; Shakun, Alexandra; Sarlin, Essi; Das, Amit; Vuorinen, Jyrki.

In: *Journal of Applied Polymer Science*, Vol. 134, No. 28, 45081, 20.07.2017.

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.** / Pirjola, L.; Rönkkö, T.; Saukko, E.; Parviainen, H.; Malinen, A.; Alanen, J.; Saveljeff, H.

In: *Fuel*, Vol. 202, 15.08.2017, p. 154-164.

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

**Feed-hopper level estimation and control in cone crushers.** / Itävuori, Pekka; Hulthén, Erik; Vilkkonen, Matti.

In: Minerals Engineering, Vol. 110, 15.08.2017, p. 82-95.

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

**Membrane Binding of Recoverin : From Mechanistic Understanding to Biological Functionality.** / Timr, Štěpán; Pleskot, Roman; Kadlec, Jan; Kohagen, Miriam; Magarkar, Aniket; Jungwirth, Pavel.

In: ACS Central Science, Vol. 3, No. 8, 23.08.2017, p. 868-874.

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

**Understanding selenium biogeochemistry in engineered ecosystems : Transformation and analytical methods.** / Jain, Rohan; Van Hullebusch, Eric D.; Lenz, Markus; Farges, François.

Bioremediation of Selenium Contaminated Wastewater. Springer International Publishing, 2017. p. 33-56.

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

**Systematic analysis of coating-substrate interactions in the presence of flow localization.** / Isakov, M.; Matikainen, V.; Koivuluoto, H.; May, M.

In: Surface and Coatings Technology, Vol. 324, 15.09.2017, p. 264-280.

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

**Waves in hyperbolic and double negative metamaterials including rogues and solitons.** / Boardman, A. D.; Alberucci, A.; Assanto, G.; Grimsky, V. V.; Kibler, B.; McNiff, J.; Nefedov, I. S.; Rapoport, Yu G.; Valagiannopoulos, C. A.

In: Nanotechnology, Vol. 28, No. 44, 444001, 09.10.2017.

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

**DoGlycans-Tools for Preparing Carbohydrate Structures for Atomistic Simulations of Glycoproteins, Glycolipids, and Carbohydrate Polymers for GROMACS.** / Danne, Reinis; Poojari, Chetan; Martinez-Seara, Hector; Rissanen, Sami; Lolicato, Fabio; Róg, Tomasz; Vattulainen, Ilpo.

In: Journal of Chemical Information and Modeling, Vol. 57, No. 10, 23.10.2017, p. 2401-2406.

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

**Carbazole-based small molecule electron donors : Syntheses, characterization, and material properties.** / Sippola, Roosa J.; Hadipour, Afshin; Kastinen, Tuuva; Vivo, Paola; Hukka, Terttu I.; Aernouts, Tom; Heiskanen, Juha P.

In: Dyes and Pigments, Vol. 150, j.dyepig.2017.11.014, 08.11.2017, p. 79-88.

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

**Mapping microscale wetting variations on biological and synthetic water-repellent surfaces.** / Liimatainen, Ville; Vuckovac, Maja; Jokinen, Ville; Sariola, Veikko; Hokkanen, Matti J.; Zhou, Quan; Ras, Robin H.A.

In: Nature Communications, Vol. 8, No. 1, 1798, 01.12.2017.

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.** / Lisitsyna, Ekaterina S.; Ketola, Tiia-Maaria; Morin-Picardat, Emmanuelle; Liang, Huamin; Hanzlíková, Martina; Urtti, Arto; Yliperttula, Marjo; Vuorimaa-Laukkanen, Elina.

In: Journal of Physical Chemistry B, Vol. 121, No. 48, 07.12.2017, p. 10782-10792.

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

**Supercritical carbon dioxide treatment of hot dip galvanized steel as a surface treatment before coating.** / Saarimaa, Ville; Kaleva, Aaretti; Nikkanen, Juha-Pekka; Heinonen, Saara; Levänen, Erkki; Väisänen, Pasi; Markkula, Antti; Juhanoja, Jyrki.

In: Surface and Coatings Technology, Vol. 331, 15.12.2017, p. 137-142.

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

**A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances.** / Tienaho, Jenni; Poikulainen, Emmi; Sarjala, Tytti; Muilu-Mäkelä, Riina; Santala, Ville; Karp, Matti.

In: Photochemistry and Photobiology, Vol. 94, No. 6, 2018, p. 1273-1280.

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

**Adsorption of furfural from torrefaction condensate using torrefied biomass.** / Doddapaneni, Tharaka Rama Krishna C.; Jain, Rohan; Praveenkumar, Ramasamy; Rintala, Jukka; Romar, Henrik; Konttinen, Jukka.

In: Chemical Engineering Journal, Vol. 334, 2018, p. 558-568.

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.** / Dessi, Paolo; Porca, Stefania; Haavisto, Johanna; Lakaniemi, Aino-Maija; Collins, Gavin; Lens, Piet N.L.

In: RSC Advances, Vol. 8, No. 6, 2018, p. 3069-3080.

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

**Convenient extraction method for quantification of thin zinc patina layers.** / Saarimaa, Ville; Kaleva, Aaretti; Paunikallio, Teemu; Nikkanen, Juha-Pekka; Heinonen, Saara; Levänen, Erkki; Väisänen, Pasi; Markkula, Antti.

In: Surface and Interface Analysis, Vol. 50, No. 5, 2018, p. 564-570.

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

**Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt.** / Ojha, N.; Nguyen, H.; Laihinen, T.; Salminen, T.; Lastusaari, M.; Petit, L.

In: Corrosion Science, Vol. 135, 2018, p. 207-214.

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

**Detection and characterization at nM concentration of oligomers formed by hIAPP, A $\beta$ (1-40) and their equimolar mixture using SERS and MD simulations.** / D'Urso, Luisa; Condorelli, Marcello; Puglisi, Orazio; Tempa, Carmelo; Lolicato, Fabio; Compagnini, Giuseppe; La Rosa, Carmelo.

In: Physical Chemistry Chemical Physics, Vol. 20, No. 31, 2018, p. 20588-20596.

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, Nikita A.; Isokuortti, Jussi; Efimov, Alexander; Vuorimaa-Laukkanen, Elina; Tkachenko, Nikolai V.; Laaksonen, Timo.

In: Chemical Communications, Vol. 54, No. 99, 2018, p. 14029-14032.

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.** / Rokade, Shalaka S.; Joshi, Komal A.; Mahajan, Ketakee; Patil, Saniya; Tomar, Geetanjali; Dubal, Dnyanesh S.; Parihar, Vijay Singh; Kitture, Rohini; Bellare, Jayesh R.; Ghosh, Sougata.

In: Bioinorganic Chemistry and Applications, Vol. 2018, 4924186, 2018.

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

**Improved electromechanical response in acrylic rubber by different carbon-based fillers.** / Shakun, Alexandra; Poikelispää, Minna; Das, Amit; Vuorinen, Jyrki.

In: Polymer Engineering and Science, Vol. 58, No. 3, 2018, p. 395-404.

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.** / Rajan, Rathish; Rainosalo, Egidija; Thomas, Selvin P.; Ramamoorthy, Sunil Kumar; Zavašnik, Janez; Vuorinen, Jyrki; Skrifvars, Mikael.

In: Polymer Bulletin, Vol. 75, No. 1, 2018, p. 167-195.

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

**On the molecular optical nonlinearity of halogen-bond-forming azobenzenes.** / Virkki, Matti; Maurice, Anthony; Forni, Alessandra; Sironi, Maurizio; Dichiarante, Valentina; Brevet, Pierre Francois; Metrangolo, Pierangelo; Kauranen, Martti; Priimagi, Arri.

In: Physical Chemistry Chemical Physics, Vol. 20, No. 45, 2018, p. 28810-28817.

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

**Optical frequency comb photoacoustic spectroscopy.** / Sadiq, Ibrahim; Mikkonen, Tommi; Vainio, Markku; Toivonen, Juha; Foltynowicz, Aleksandra.

In: *Physical Chemistry Chemical Physics*, Vol. 20, No. 44, 2018, p. 27849-27855.

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

**Regeneration of sulfur-poisoned Pd-based catalyst for natural gas oxidation.** / Honkanen, Mari; Wang, Jianguang; Kärkkäinen, Marja; Huuhtanen, Mika; Jiang, Hua; Kallinen, Kauko; Keiski, Riitta L.; Akola, Jaakko; Vippola, Minnamari.

In: *Journal of Catalysis*, Vol. 358, 2018, p. 253-265.

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.** / Nykänen, Hannu; Mpamah, Promise A.; Rissanen, Antti J.

In: *Isotopes in Environmental and Health Studies*, Vol. 54, No. 6, 2018.

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

**Supramolecular design principles for efficient photoresponsive polymer-azobenzene complexes.** / Vapaavuori, Jaana; Bazuin, C. Geraldine; Priimagi, Arri.

In: *Journal of Materials Chemistry C*, Vol. 6, No. 9, 2018, p. 2168-2188.

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

**Concentration-dependent photophysical switching in mixed self-assembled monolayers of pentacene and perylene diimide on gold nanoclusters.** / Kato, Daiki; Sakai, Hayato; Araki, Yasuyuki; Wada, Takehiko; Tkachenko, Nikolai V.; Hasobe, Taku.

In: *Physical Chemistry Chemical Physics*, Vol. 20, No. 13, 01.01.2018, p. 8695-8706.

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

**Ortho-Fluorination of azophenols increases the mesophase stability of photoresponsive hydrogen-bonded liquid crystals.** / Saccone, Marco; Kuntze, Kim; Ahmed, Zafar; Siiskonen, Antti; Giese, Michael; Priimagi, Arri.

In: *Journal of Materials Chemistry C*, Vol. 6, No. 37, 01.01.2018, p. 9958-9963.

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

**Upconversion from fluorophosphate glasses prepared with NaYF<sub>4</sub>:Er<sup>3+</sup>, Yb<sup>3+</sup> nanocrystals.** / Ojha, N.; Tuomisto, M.; Lastusaari, M.; Petit, L.

In: *RSC Advances*, Vol. 8, No. 34, 01.01.2018, p. 19226-19236.

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.** / Das, Amit; Sallat, Aladdin; Böhme, Frank; Sarlin, Essi; Vuorinen, Jyrki; Vennemann, Norbert; Heinrich, Gert; Stöckelhuber, Klaus Werner.

In: *Polymers*, Vol. 10, No. 1, 94, 19.01.2018.

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

**Controlled Growth of Supported ZnO Inverted Nanopyramids with Downward Pointing Tips.** / Barreca, Davide; Carraro, Giorgio; Maccato, Chiara; Altantzis, Thomas; Kaunisto, Kimmo; Gasparotto, Alberto.

In: *Crystal Growth and Design*, Vol. 18, No. 4, 02.2018, p. 2579-2587.

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

**MetrIntSimil-an accurate and robust metric for comparison of similarity in intelligence of any number of cooperative multiagent systems.** / Iantovics, Laszlo Barna; Dehmer, Matthias; Emmert-Streib, Frank.

In: *Symmetry*, Vol. 10, No. 2, 48, 01.02.2018.

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, Sankar Raman; Stöckelhuber, Klaus Werner; Subramani Bhagavatheswaran, Eshwaran; Wießner, Sven; Scheler, Ulrich; Saalwächter, Kay; Formanek, Petr; Heinrich, Gert; Das, Amit.



In: Journal of Physical Chemistry B, Vol. 122, No. 6, 15.02.2018, p. 2010-2022.

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

**Pot-economy autooxidative condensation of 2-Aryl-2-lithio-1,3-dithianes.** / Vale, Joao R.; Rimpiläinen, Tatu; Sievänen, Elina; Rissanen, Kari; Afonso, Carlos A.M.; Candeias, Nuno R.

In: Journal of Organic Chemistry, Vol. 83, No. 4, 16.02.2018, p. 1948-1958.

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

**UV-Blocking Synthetic Biopolymer from Biomass-Based Bifuran Diester and Ethylene Glycol.** / Kainulainen, Tuomo P.; Sirviö, Juho A.; Sethi, Jatin; Hukka, Terttu I.; Heiskanen, Juha P.

In: Macromolecules, Vol. 51, No. 5, 21.02.2018, p. 1822-1829.

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

**An activity recognition framework deploying the random forest classifier and a single optical heart rate monitoring and triaxial accelerometer wrist-band.** / Mehrang, Saeed; Pietilä, Julia; Korhonen, Ilkka.

In: Sensors, Vol. 18, No. 2, 613, 22.02.2018.

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

**Improved Stability of Atomic Layer Deposited Amorphous TiO<sub>2</sub> Photoelectrode Coatings by Thermally Induced Oxygen Defects.** / Hannula, Markku; Ali-Löytty, Harri; Lahtonen, Kimmö; Sarlin, Essi; Saari, Jesse; Valden, Mika.

In: Chemistry of Materials, Vol. 30, No. 4, 27.02.2018, p. 1199-1208.

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

**Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells.** / Karvinen, Jennika; Joki, Tiina; Ylä-Outinen, Laura; Koivisto, Janne T.; Narkilahti, Susanna; Kellomäki, Minna.

In: Reactive and Functional Polymers, Vol. 124, 01.03.2018, p. 29-39.

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

**Improving the high temperature abrasion resistance of thermally sprayed Cr<sub>3</sub>C<sub>2</sub>-NiCr coatings by WC addition.** / Janka, Leo; Berger, Lutz Michael; Norpoth, Jonas; Trache, Richard; Thiele, Sven; Tomastik, Christian; Matikainen, Ville; Vuoristo, Petri.

In: Surface and Coatings Technology, Vol. 337, 15.03.2018, p. 296-305.

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

**Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing.** / Poutanen, Mikko; Ahmed, Zafar; Rautkari, Lauri; Ikkala, Olli; Priimägi, Arri.

In: ACS Macro Letters, Vol. 7, No. 3, 20.03.2018, p. 381-386.

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

**Properties of HVOF-sprayed Stellite-6 coatings.** / Sassatelli, Paolo; Bolelli, Giovanni; Lassinantti Gualtieri, Magdalena; Heinonen, Esa; Honkanen, Mari; Lusvarghi, Luca; Manfredini, Tiziano; Rigon, Rinaldo; Vippola, Minnamari.

In: Surface and Coatings Technology, Vol. 338, 25.03.2018, p. 45-62.

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, Musammir; Koivisto, Janne; Hukka, Terttu; Hokka, Mikko; Kellomäki, Minna.

In: ACS Applied Materials & Interfaces, Vol. 10, No. 14, 11.04.2018, 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, Aniket; Parkkila, Petteri; Viitala, Tapani; Lajunen, Tatu; Mobarak, Edouard; Licari, Giuseppe; Cramariuc, Oana; Vauthey, Eric; Róg, Tomasz; Bunker, Alex.

In: Chemical Communications, Vol. 54, No. 28, 11.04.2018, p. 3440-3443.

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

**Accurate Binding of Sodium and Calcium to a POPC Bilayer by Effective Inclusion of Electronic Polarization.** / Melcr, Josef; Martinez-Seara, Hector; Nencini, Ricky; Kolafa, Jiří; Jungwirth, Pavel; Ollila, O. H. Samuli.  
In: Journal of Physical Chemistry B, Vol. 122, No. 16, 26.04.2018, p. 4546-4557.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Characteristics of nFOG, an aerosol-based wet thin film coating technique.** / Harra, Juha; Tuominen, Mikko; Juuti, Paxton; Rissler, Jenny; Koivuluoto, Heli; Haapanen, Janne; Niemelä-Anttonen, Henna; Stenroos, Christian; Teisala, Hannu; Lahti, Johanna; Kuusipalo, Jurkka; Vuoristo, Petri; Mäkelä, Jyrki M.  
In: Journal of Coatings Technology Research, Vol. 15, No. 3, 05.2018, p. 623-632.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Free amino acids and 5'-nucleotides in Finnish forest mushrooms.** / Manninen, Hanna; Rotola-Pukkila, Minna; Aisala, Heikki; Hopia, Anu; Laaksonen, Timo.  
In: Food Chemistry, Vol. 247, 05.2018, p. 23-28.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Wet etching of dilute nitride GaInNAs, GaInNAsSb, and GaNAsSb alloys lattice-matched to GaAs.** / Raappana, Marianna; Polojärvi, Ville; Aho, Arto; Mäkelä, Jaakko; Aho, Timo; Tukiainen, Antti; Laukkanen, Pekka; Guina, Mircea.  
In: Corrosion Science, Vol. 136, 15.05.2018, p. 268-274.  
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, Kecheng; Dichlberger, Andrea; Martinez-Seara, Hector; Nyholm, Thomas K.M.; Li, Shiqian; Kim, Young Ah; Vattulainen, Ilpo; Ikonen, Elina; Blom, Tomas.  
In: ACS Central Science, Vol. 4, No. 5, 23.05.2018, p. 548-558.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the TiO<sub>2</sub>-Phthalocyanine Interface.** / Virkki, Kirsi; Tervola, Essi; Medel, María; Torres, Tomás; Tkachenko, Nikolai V.  
In: ACS Omega, Vol. 3, No. 5, 31.05.2018, p. 4947-4958.  
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, Mikko; Peltokangas, Mikko; Vehkaoja, Antti.  
In: Sensors, Vol. 18, No. 6, 1693, 01.06.2018.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Evaluation of dry electrodes in canine heart rate monitoring.** / Virtanen, Juhani; Somppi, Sanni; Törnqvist, Heini; Jeyhani, Vala; Fiedler, Patrique; Gizatdinova, Yulia; Majaranta, Päivi; Väättäjä, Heli; Cardó, Anna Valdeoriola; Leikkala, Jukka; Tuukkanen, Sampo; Surakka, Veikko; Vainio, Outi; Vehkaoja, Antti.  
In: Sensors, Vol. 18, No. 6, 1757, 01.06.2018.  
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, Anju K.; Bhavitha, K. B.; Perumbilavil, Sreekanth; Sankar, Pranitha; Rouxel, Didier; Kala, M. S.; Thomas, Sabu; Kalarikkal, Nandakumar.  
In: Carbon, Vol. 132, 01.06.2018, p. 380-393.  
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, Lijo; Hiltunen, Arto; Santala, Ville; Efimov, Alexander.  
In: Journal of Inorganic Biochemistry, Vol. 183, 01.06.2018, p. 94-100.  
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, Sanna; Keinänen, Pasi; Rätty, Anna; Ramakrishnan, Karthik Ram; Tuukkanen, Sampo; Kunnari, Vesa; Harlin, Ali; Vuorinen, Jyrki; Kanerva, Mikko.

In: International Journal of Molecular Sciences, Vol. 19, No. 6, 1819, 20.06.2018.

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

**Pectin and Mucin Enhance the Bioadhesion of Drug Loaded Nanofibrillated Cellulose Films.** / Laurén, Patrick; Paukkonen, Heli; Lipiäinen, Tiina; Dong, Yujiao; Oksanen, Timo; Rääkkönen, Heikki; Ehlers, Henrik; Laaksonen, Päivi; Yliperttula, Marjo; Laaksonen, Timo.

In: Pharmaceutical Research, Vol. 35, No. 7, 145, 01.07.2018.

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

**High Bending-Mode Sensitivity of Printed Piezoelectric Poly(vinylidene fluoride- co-trifluoroethylene) Sensors.** / Rajala, Satu; Schouten, Martijn; Krijnen, Gijs; Tuukkanen, Sampo.

In: ACS Omega, Vol. 3, No. 7, 23.07.2018, p. 8067-8073.

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

**Design aspects of all atomic layer deposited TiO<sub>2</sub>-Fe<sub>2</sub>O<sub>3</sub> scaffold-absorber photoanodes for water splitting.** / Hiltunen, Arto; Ruoko, Tero-Petri; Iivonen, Tomi; Lahtonen, Kimmo; Ali-Löytty, Harri; Sarlin, Essi; Valden, Mika; Leskelä, Markku; Tkachenko, Nikolai.

In: Sustainable Energy & Fuels, Vol. 2, No. 9, 31.07.2018, p. 2124-2130.

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, Lea Chua; Espinosa-Ortiz, Erika J.; Nancharaiah, Yarlagadda V.; van Hullebusch, Eric D.; Gerlach, Robin; Lens, Piet NI.

In: Journal of Chemical Technology and Biotechnology, Vol. 93, No. 8, 08.2018, p. 2380-2389.

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

**Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids.** / Mandal, Sadananda; Garcia Iglesias, Miguel; Ince, Mine; Torres, Tomás; Tkachenko, Nikolai V.

In: ACS Omega, Vol. 3, No. 8, 31.08.2018, p. 10048-10057.

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

**A compact olfactometer for IMS measurements and testing human perception.** / Nieminen, Ville; Karjalainen, Markus; Salminen, Katri; Rantala, Jussi; Kontunen, Anton; Isokoski, Poika; Müller, Philipp; Kallio, Pasi; Surakka, Veikko; Lekkala, Jukka.

In: International Journal for Ion Mobility Spectrometry, Vol. 21, No. 3, 09.2018, p. 71-80.

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

**Effects of pyrolysis temperature on the hydrologically relevant porosity of willow biochar.** / Hyväluoma, Jari; Hannula, Markus; Arstila, Kai; Wang, Hailong; Kulju, Sampo; Rasa, Kimmo.

In: Journal of Analytical and Applied Pyrolysis, Vol. 134, 09.2018.

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

**Electro-concentration for chemical-free nitrogen capture as solid ammonium bicarbonate.** / Jermakka, Johannes; Thompson Brewster, Emma; Ledezma, Pablo; Freguia, Stefano.

In: Separation and Purification Technology, Vol. 203, 12.09.2018, p. 48-55.

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

**Mechanical, thermal, and burning properties of viscose fabric composites : Influence of epoxy resin modification.** / Rajan, Rathish; Rainosalu, Egidija; Ramamoorthy, Sunil Kumar; Thomas, Selvin P.; Zavašnik, Janez; Vuorinen, Jyrki; Skrifvars, Mikael.

In: Journal of Applied Polymer Science, Vol. 135, No. 36, 46673, 20.09.2018.

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

**Quantification of bio-anode capacitance in bioelectrochemical systems using Electrochemical Impedance Spectroscopy.** / Heijne, Annemiek ter; Liu, Dandan; Sulonen, Mira; Sleutels, Tom; Fabregat-Santiago, Francisco.

In: Journal of Power Sources, Vol. 400, 01.10.2018, p. 533-538.

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

**Computation of Dynamic Polarizabilities and van der Waals Coefficients from Path-Integral Monte Carlo.** / Tiihonen, Juha; Kylänpää, Ilkka; Rantala, Tapio T.

In: *Journal of Chemical Theory and Computation*, Vol. 14, 02.10.2018, p. 5750-5763.

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

**Biological treatment of selenium-laden wastewater containing nitrate and sulfate in an upflow anaerobic sludge bed reactor at pH 5.0.** / Tan, Lea Chua; Nancharaiyah, Yarlagadda V.; Lu, Shipeng; van Hullebusch, Eric D.; Gerlach, Robin; Lens, Piet N.L.

In: *Chemosphere*, Vol. 211, 01.11.2018, p. 684-693.

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

**Tribocorrosion behaviour of aluminium bronze in 3.5 wt.% NaCl solution.** / Huttunen-Saarivirta, E.; Isotahdon, E.; Metsäjoki, J.; Salminen, T.; Carpén, L.; Ronkainen, H.

In: *Corrosion Science*, Vol. 144, 01.11.2018, p. 207-223.

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

**Molecular-Scale Ligand Effects in Small Gold-Thiolate Nanoclusters.** / Chevrier, Daniel M.; Raich, Lluís; Rovira, Carme; Das, Anindita; Luo, Zhentao; Yao, Qiaofeng; Chatt, Amares; Xie, Jianping; Jin, Rongchao; Akola, Jaakko; Zhang, Peng.

In: *Journal of the American Chemical Society*, Vol. 140, No. 45, 14.11.2018, p. 15430-15436.

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

**High-Yield Generation of Triplet Excited States by an Efficient Sequential Photoinduced Process from Energy Transfer to Singlet Fission in Pentacene-Modified CdSe/ZnS Quantum Dots.** / Sakai, Hayato; Inaya, Ryutaro; Tkachenko, Nikolai V.; Hasobe, Taku.

In: *Chemistry - A European Journal*, Vol. 24, No. 64, 16.11.2018, p. 17062-17071.

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

**M2M Communication Assessment in Energy-Harvesting and Wake-Up Radio Assisted Scenarios Using Practical Components.** / Rinne, Jukka; Keskinen, Jari; Berger, Paul R.; Lupo, Donald; Valkama, Mikko.

In: *Sensors (Basel, Switzerland)*, Vol. 18, No. 11, 16.11.2018.

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

**High Nitrogen Removal in a Constructed Wetland Receiving Treated Wastewater in a Cold Climate.** / Uusheimo, Sari; Huotari, Jussi; Tulonen, Tiina; Aalto, Sanni L.; Rissanen, Antti J.; Arvola, Lauri.

In: *Environmental science & technology*, Vol. 52, No. 22, 20.11.2018, p. 13343-13350.

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

**Machine learning analysis of extreme events in optical fibre modulation instability.** / Närhi, Mikko; Salmela, Lauri; Toivonen, Juha; Billet, Cyril; Dudley, John M.; Genty, Goëry.

In: *Nature Communications*, Vol. 9, No. 1, 22.11.2018.

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

**Aminobenzylated 4-Nitrophenols as Antibacterial Agents Obtained from 5-Nitrosalicylaldehyde through a Petasis Borono-Mannich Reaction.** / Rimpiläinen, Tatu; Andrade, Joana; Nunes, Alexandra; Ntungwe, Epole; Fernandes, Ana S.; Vale, Joao R.; Rodrigues, Joao; Gomes, Joao Paulo; Rijo, Patricia; Candeias, Nuno R.

In: *ACS Omega*, Vol. 3, No. 11, 29.11.2018, p. 16191-16202.

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

**Bi-directional cell-pericellular matrix interactions direct stem cell fate.** / Ferreira, Silvia A.; Motwani, Meghna S.; Faull, Peter A.; Seymour, Alexis J.; Yu, Tracy T.L.; Enayati, Marjan; Taheem, Dheraj K.; Salzlechner, Christoph; Haghghi, Tabasom; Kania, Ewa M.; Oommen, Oommen P.; Ahmed, Tarek; Loaiza, Sandra; Parzych, Katarzyna; Dazzi, Francesco; Varghese, Oommen P.; Festy, Frederic; Grigoriadis, Agamemnon E.; Auner, Holger W.; Snijders, Ambrosius P.; Bozec, Laurent; Gentleman, Eileen.

In: *Nature Communications*, Vol. 9, No. 1, 4049, 12.2018.

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

**Beaming random lasers with soliton control.** / Perumbilavil, Sreekanth; Piccardi, Armando; Barboza, Raouf; Buchnev, Oleksandr; Kauranen, Martti; Strangi, Giuseppe; Assanto, Gaetano.

In: Nature Communications, Vol. 9, No. 1, 3863, 01.12.2018.

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

**Machine learning plastic deformation of crystals.** / Salmenjoki, Henri; Alava, Mikko J.; Laurson, Lasse.

In: Nature Communications, Vol. 9, No. 1, 5307, 01.12.2018.

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

**Structural basis of actin monomer re-charging by cyclase-Associated protein.** / Kotila, Tommi; Kogan, Konstantin; Enkavi, Giray; Guo, Siyang; Vattulainen, Ilpo; Goode, Bruce L.; Lappalainen, Pekka.

In: Nature Communications, Vol. 9, No. 1, 1892, 01.12.2018.

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

**Experimental moment resistance of rectangular hollow section T joints.** / Garifullin, Marsel.

In: MATEC Web of Conferences, Vol. 245, 08003, 05.12.2018.

Research output: Contribution to journal > Conference article > Scientific > peer-review

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

Czaplicki, Robert; Kiviniemi, Antti; Huttunen, Mikko J.; Zang, Xiaorun; Stolt, Timo; Vartiainen, Ismo; Butet, Jérémy; Kuitinen, Markku; Martin, Olivier J.F.; Kauranen, Martti.

In: Nano Letters, Vol. 18, No. 12, 12.12.2018, p. 7709-7714.

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

**Reversible photodoping of TiO<sub>2</sub> nanoparticles.** / Joost, Urmas; Sutka, Andris; Oja, Marek; Smits, Krisjanis; Doebelin, Nicola; Loot, Ardi; Järvekülg, Martin; Hirsimäki, Mika; Valden, Mika; Nommiste, Ergo.

In: Chemistry of Materials, Vol. 30, No. 24, 26.12.2018, p. 8968-8974.

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

**An automated algorithm for reliable equation of state fitting of magnetic systems.** / Levämäki, H.; Tian, L.-Y.; Vitos, L.; Ropo, M.

In: Computational Materials Science, Vol. 156, 2019, p. 121-128.

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

**Exclusive occurrence of photoinduced energy transfer and switching of its direction by rectangular  $\pi$ -extension of nanographenes.** / Umeyama, Tomokazu; Hanaoka, Takuma; Yamada, Hiroki; Namura, Yuki; Mizuno, Satoshi; Ohara, Tomoya; Baek, Jinseok; Park, Jaehong; Takano, Yuta; Stranius, Kati; Tkachenko, Nikolai V.; Imahori, Hiroshi.

In: Chemical Science, Vol. 10, No. 27, 2019, p. 6642-6650.

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

**Low-dimensional formamidinium lead perovskite architectures via controllable solvent intercalation.** / Shin, Mingue; Kim, Joonyun; Jung, Young Kwang; Ruoko, Tero-Petri; Priimagi, Arri; Walsh, Aron; Shin, Byungha.

In: Journal of Materials Chemistry C, Vol. 7, No. 13, 2019, p. 3945-3951.

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

**Metabolic profiling of water-soluble compounds from the extracts of dark septate endophytic fungi (DSE) isolated from scots pine (*Pinus sylvestris* L.) seedlings using UPLC-orbitrap-MS.** / Tienaho, Jenni; Karonen, Maarit; Muilu-Mäkelä, Riina; Wähälä, Kristiina; Denegri, Eduardo Leon; Franzén, Robert; Karp, Matti; Santala, Ville; Sarjala, Tytti.

In: Molecules, Vol. 24, No. 12, 2330, 2019.

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

**Multiphoton Excitation of CsPbBr<sub>3</sub> Perovskite Quantum Dots (PQDs) : How Many Electrons Can One PQD Donate to Multiple Molecular Acceptors?** / Mandal, Sadananda; Tkachenko, Nikolai V.

In: Journal of Physical Chemistry Letters, 2019, p. 2775-2781.

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

**O<sub>2</sub>-requiring molecular reporters of gene expression for anaerobic microorganisms.** / Guglielmetti, Simone; Santala, Ville; Mangayil, Rahul; Ciranna, Alessandro; Karp, Matti T.  
In: Biosensors and Bioelectronics, Vol. 123, 2019, p. 1-6.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Possible strategy to use differential mobility spectrometry in real time applications.** / Anttalainen, Osmo; Puton, Jaroslaw; Kontunen, Anton; Karjalainen, Markus; Kumpulainen, Pekka; Oksala, Niku; Safaei, Zahra; Roine, Antti.  
In: International Journal for Ion Mobility Spectrometry, 2019.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Spodumene tailings for porcelain and structural materials : Effect of temperature (1050–1200°C) on the sintering and properties.** / Lemougna, Patrick N.; Yliniemi, Juho; Ismailov, Arnold; Levänen, Erkki; Tanskanen, Pekka; Kinnunen, Paivo; Roning, Juha; Illikainen, Mirja.  
In: Minerals Engineering, 2019.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Synthesis of 6,12-disubstituted methanodibenzo[b,f][1,5]dioxocins : Pyrrolidine catalyzed self-condensation of 2'-Hydroxyacetophenones.** / Assoah, Benedicta; Riihonen, Vesa; Vale, João R.; Valkonen, Arto; Candeias, Nuno R.  
In: Molecules, Vol. 24, No. 13, 2405, 2019.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Temperature scanning stress relaxation behavior of water responsive and mechanically adaptive elastomer nanocomposites.** / Banerjee, Shib Shankar; Natarajan, Tamil S.; Subramani B., Eshwaran; Wießner, Sven; Janke, Andreas; Heinrich, Gert; Das, Amit.  
In: Journal of Applied Polymer Science, 2019.  
Research output: Contribution to journal › Article › Scientific › peer-review

**The Hosoya entropy of graphs revisited.** / Ghorbani, Modjtaba; Dehmer, Matthias; Mowshowitz, Abbe; Tao, Jin; Emmert-Streib, Frank.  
In: Symmetry, Vol. 11, No. 8, 1013, 2019.  
Research output: Contribution to journal › Article › Scientific › peer-review

**The maximum Hosoya index of unicyclic graphs with diameter at most four.** / Liu, Weijun; Ban, Jingwen; Feng, Lihua; Cheng, Tao; Emmert-Streib, Frank; Dehmer, Matthias.  
In: Symmetry, Vol. 11, No. 8, 1034, 2019.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Tuning of nonlinear absorption in highly luminescent CdSe based quantum dots with core-shell and core/multi-shell architectures.** / Bhagyaraj, Sneha; Perumbilavil, Sreekanth; Udayabashkar, R.; Mangalaraja, R. V.; Thomas, Sabu; Kalarikkal, Nandakumar; Oluwafemi, Oluwatobi Samuel.  
In: Physical Chemistry Chemical Physics, Vol. 21, No. 21, 2019, p. 11424-11434.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Volatile fatty acid adsorption on anion exchange resins : kinetics and selective recovery of acetic acid.** / Eregowda, Tejaswini; Rene, Eldon R.; Rintala, Jukka; Lens, Piet N.L.  
In: Separation Science and Technology (Philadelphia), 2019.  
Research output: Contribution to journal › Article › Scientific › peer-review

**A Pentacene-based Nanotube Displaying Enriched Electrochemical and Photochemical Activities.** / Kuroda, Kiyonori; Yazaki, Kohei; Tanaka, Yuya; Akita, Munetaka; Sakai, Hayato; Hasobe, Taku; Tkachenko, Nikolai V.; Yoshizawa, Michito.  
In: Angewandte Chemie - International Edition, Vol. 58, No. 4, 01.2019, p. 1115-1119.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Charge carrier dynamics in tantalum oxide overlayers and tantalum doped hematite photoanodes.** / Ruoko, Tero-Petri; Hiltunen, Arto; Iivonen, Tomi; Ulkuniemi, Riina; Lahtonen, Kimmo; Ali-Löytty, Harri; Mizohata, Kenichiro; Valden, Mika; Leskelä, Markku; Tkachenko, Nikolai V.

In: Journal of Materials Chemistry A, Vol. 7, No. 7, 01.2019, p. 3206-3215.

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

**Alpha radiation-induced luminescence by am-241 in aqueous nitric acid solution.** / Kerst, Thomas; Malmbeck, Rikard; Ial Banik, Nidhu L.; Toivonen, Juha.

In: Sensors (Switzerland), Vol. 19, No. 7, 1602, 01.04.2019.

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

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

Puustinen, J.; Hilska, J.; Guina, M.

In: Journal of Crystal Growth, Vol. 511, 01.04.2019, p. 33-41.

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

**Hydrolysis and drug release from poly(ethylene glycol)-modified lactone polymers with open porosity.** / Asikainen, Sanja; Paakinaho, Kaarlo; Kyhkynen, Anna Kaisa; Hannula, Markus; Malin, Minna; Ahola, Niina; Kellomäki, Minna; Seppälä, Jukka.

In: European Polymer Journal, Vol. 113, 01.04.2019, p. 165-175.

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