

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

Vuorimaa-Laukkanen, E., Lisitsyna, E. S., Ketola, T-M., Morin-Pickardat, E., Liang, H., Hanzlikova, M., Urtti, A., Yliperttula, M. L., Lisitsyna, E. & Laaksonen, T., 2017.

Research output: Other conference contribution > Paper, poster or abstract > Scientific

### **Melting and evaporation of argon clusters**

Rytkönen, A., Valkealahti, S. & Manninen, M., 1 Feb 1997, In : *Journal of Chemical Physics*. 106, 5, p. 1888-1892 5 p.

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

### **Melting of copper clusters**

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

### **Organic and Printed Electronics: Fundamentals and Applications**

Nisato, G. (ed.), Lupo, D. (ed.) & Ganz, S. (ed.), 5 Apr 2016, 1 ed. Singapore: PAN STANFORD PUBLISHING. 580 p.

Research output: Book/Report > Anthology > Professional

### **Designing of Elastomer Nanocomposites: From Theory to Application**

Stöckelhuber, K. W. (ed.), Das, A. (ed.) & Klüppel, M. (ed.), 17 Aug 2016, Springer International Publishing. (Advances in Polymer Science; vol. 275)

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

### **Double-side pumped membrane external-cavity surface-emitting laser (MECSEL) with increased efficiency emitting > 3 W in the 780 nm region**

Kahle, H., Phung, H-M., Penttinen, J-P., Rajala, P., Tukiainen, A., Ranta, S. & Guina, M., 1 May 2019, *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE

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

### **Optical Frequency Comb Photoacoustic Spectroscopy**

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

### **Frequency Comb Generation in a Continuous-Wave Pumped Second-Order Nonlinear Waveguide Resonator**

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

### **High-Q resonance train in a plasmonic metasurface**

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

### **Nanocellulose and Polylactic Acid Based Multilayer Coatings for Barrier Applications**

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

### **Market implementation of active and intelligent packaging-opportunities from a socio-economic perspective**

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### **Effect of polyolefin molecular structure on product properties in extrusion coating**

Suokas, E., 2019, *17th Biennial TAPPI European PLACE Conference 2019*. TAPPI Press, p. 89-98 10 p.

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

#### **Novel equipment to simulate hot air heat sealability of packaging materials**

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

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

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

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

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#### **Nanoscale barrier coating on BOPP packaging film by ALD**

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

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

#### **Inkjet-printed dual microfluidic-based sensor integrated system**

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

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

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**Understanding selenium biogeochemistry in engineered ecosystems: Transformation and analytical methods**

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**Nanostructured Ionomeric Elastomers**

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**Halogen-bonded photoresponsive materials**

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**Waves in hyperbolic and double negative metamaterials including rogues and solitons**

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**Liquid flame spray—a hydrogen-oxygen flame based method for nanoparticle synthesis and functional nanocoatings**

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**New perspectives on proton pumping in cellular respiration**

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

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

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

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**Multiresonant High-Q Plasmonic Metasurfaces**

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

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

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

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### **Photochemistry of dithiophosphinate Ni(S<sub>2</sub>P(i-Bu)<sub>2</sub>)<sub>2</sub> complex in CCl<sub>4</sub>. Transient species and TD-DFT calculations**

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### **Erosion wear performance of WC-10Co4Cr and Cr<sub>3</sub>C<sub>2</sub>-25NiCr coatings sprayed with high-velocity thermal spray processes**

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

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

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#### **Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of H<sub>2</sub>O<sub>2</sub> Using Low-Intensity Direct Current**

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

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

Puustinen, J., Hilska, J. & Guina, M., 1 Apr 2019, In : Journal of Crystal Growth. 511, p. 33-41 9 p.

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

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

Asikainen, S., Paakinaho, K., Kyhkynen, A. K., Hannula, M., Malin, M., Ahola, N., Kellomäki, M. & Seppälä, J., 1 Apr 2019, In : European Polymer Journal. 113, p. 165-175 11 p.

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

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

Ometov, A., Bezzateev, S., Davydov, V., Shchesniak, A., Masek, P., Lohan, E. S. & Koucheryavy, Y., 1 Apr 2019, In : Sensors. 19, 7, 1603.

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

### **Alpha radiation-induced luminescence by am-241 in aqueous nitric acid solution**

Kerst, T., Malmbeck, R., Ial Banik, N. L. & Toivonen, J., 1 Apr 2019, In : Sensors (Switzerland). 19, 7, 1602.

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

### **A Pentacene-based Nanotube Displaying Enriched Electrochemical and Photochemical Activities**

Kuroda, K., Yazaki, K., Tanaka, Y., Akita, M., Sakai, H., Hasobe, T., Tkachenko, N. V. & Yoshizawa, M., Jan 2019, In : Angewandte Chemie - International Edition. 58, 4, 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, T-P., Hiltunen, A., Iivonen, T., Ulkuniemi, R., Lahtonen, K., Ali-Löyty, H., Mizohata, K., Valden, M., Leskelä, M. & Tkachenko, N. V., Jan 2019, In : Journal of Materials Chemistry A. 7, 7, p. 3206-3215 10 p.

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

### **O<sub>2</sub>-requiring molecular reporters of gene expression for anaerobic microorganisms**

Güglielmetti, S., Santala, V., Mangayil, R., Ciranna, A. & Karp, M. T., 2019, In : Biosensors and Bioelectronics. 123, p. 1-6 6 p.

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., 2019, In : Computational Materials Science. 156, p. 121-128 8 p.

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

### **Low-dimensional formamidinium lead perovskite architectures via controllable solvent intercalation**

Shin, M., Kim, J., Jung, Y. K., Ruoko, T-P., Priimagi, A., Walsh, A. & Shin, B., 2019, In : Journal of Materials Chemistry C. 7, 13, p. 3945-3951 7 p.

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, S., Perumbilavil, S., Udayabashkar, R., Mangalaraja, R. V., Thomas, S., Kalarikkal, N. & Oluwafemi, O. S., 2019, In : Physical Chemistry Chemical Physics. 21, 21, p. 11424-11434 11 p.

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, S. & Tkachenko, N. V., 2019, In : Journal of Physical Chemistry Letters. p. 2775-2781 7 p.

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, P. N., Yliniemi, J., Ismailov, A., Levänen, E., Tanskanen, P., Kinnunen, P., Roning, J. & Illikainen, M., 2019, (Accepted/In press) In : Minerals Engineering. 105843.

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, T., Rene, E. R., Rintala, J. & Lens, P. N. L., 2019, In : Separation Science and Technology (Philadelphia).

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

### **Possible strategy to use differential mobility spectrometry in real time applications**

Anttalainen, O., Puton, J., Kontunen, A., Karjalainen, M., Kumpulainen, P., Oksala, N., Safaei, Z. & Roine, A., 2019, In : International Journal for Ion Mobility Spectrometry.

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, B., Riihonen, V., Vale, J. R., Valkonen, A. & Candeias, N. R., 2019, In : Molecules. 24, 13, 2405.

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, J., Karonen, M., Muilu-Mäkelä, R., Wähälä, K., Denegri, E. L., Franzén, R., Karp, M., Santala, V. & Sarjala, T., 2019, In : Molecules. 24, 12, 2330.

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### **Exclusive occurrence of photoinduced energy transfer and switching of its direction by rectangular $\pi$ -extension of nanographenes**

Umeyama, T., Hanaoka, T., Yamada, H., Namura, Y., Mizuno, S., Ohara, T., Baek, J., Park, J., Takano, Y., Stranius, K., Tkachenko, N. V. & Imahori, H., 2019, In : Chemical Science. 10, 27, p. 6642-6650 9 p.

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



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

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

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

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

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

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

#### **Reversible photodoping of TiO<sub>2</sub> nanoparticles**

Joost, U., Sutka, A., Oja, M., Smits, K., Doebelin, N., Loot, A., Järvekülg, M., Hirsimäki, M., Valden, M. & Nommiste, E., 26 Dec 2018, In : *Chemistry of Materials*. 30, 24, p. 8968-8974

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

Czaplicki, R., Kiviniemi, A., Huttunen, M. J., Zang, X., Stolt, T., Vartiainen, I., Butet, J., Kuittinen, M., Martin, O. J. F. & Kauranen, M., 12 Dec 2018, In : *Nano Letters*. 18, 12, p. 7709-7714 6 p.

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

#### **Experimental moment resistance of rectangular hollow section T joints**

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Research output: Contribution to journal > Conference article > Scientific > peer-review

#### **Structural basis of actin monomer re-charging by cyclase-Associated protein**

Kotila, T., Kogan, K., Enkavi, G., Guo, S., Vattulainen, I., Goode, B. L. & Lappalainen, P., 1 Dec 2018, In : *Nature Communications*. 9, 1, 1892.

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

Rimpiläinen, T., Andrade, J., Nunes, A., Ntungwe, E., Fernandes, A. S., Vale, J. R., Rodrigues, J., Gomes, J. P., Rijo, P. & Candeias, N. R., 29 Nov 2018, In : ACS Omega. 3, 11, p. 16191-16202 12 p.

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**Machine learning analysis of extreme events in optical fibre modulation instability**

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

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**High-Yield Generation of Triplet Excited States by an Efficient Sequential Photoinduced Process from Energy Transfer to Singlet Fission in Pentacene-Modified CdSe/ZnS Quantum Dots**

Sakai, H., Inaya, R., Tkachenko, N. V. & Hasobe, T., 16 Nov 2018, In : Chemistry - A European Journal. 24, 64, p. 17062-17071 10 p.

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

Rinne, J., Keskinen, J., Berger, P. R., Lupo, D. & Valkama, M., 16 Nov 2018, In : Sensors (Basel, Switzerland). 18, 11

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**Molecular-Scale Ligand Effects in Small Gold-Thiolate Nanoclusters**

Chevrier, D. M., Raich, L., Rovira, C., Das, A., Luo, Z., Yao, Q., Chatt, A., Xie, J., Jin, R., Akola, J. & Zhang, P., 14 Nov 2018, In : Journal of the American Chemical Society. 140, 45, p. 15430-15436 7 p.

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

Tan, L. C., Nancharaiyah, Y. V., Lu, S., van Hullebusch, E. D., Gerlach, R. & Lens, P. N. L., 1 Nov 2018, In : Chemosphere. 211, p. 684-693 10 p.

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

Huttunen-Saarivirta, E., Isotahdon, E., Metsäjoki, J., Salminen, T., Carpén, L. & Ronkainen, H., 1 Nov 2018, In : Corrosion Science. 144, p. 207-223 17 p.

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

Tiihonen, J., Kylänpää, I. & Rantala, T. T., 2 Oct 2018, In : Journal of Chemical Theory and Computation. 14, p. 5750-5763 14 p.

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

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

Rajan, R., Rainosalu, E., Ramamoorthy, S. K., Thomas, S. P., Zavašnik, J., Vuorinen, J. & Skrifvars, M., 20 Sep 2018, In : Journal of Applied Polymer Science. 135, 36, 46673.

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#### **Electro-concentration for chemical-free nitrogen capture as solid ammonium bicarbonate**

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#### **A compact olfactometer for IMS measurements and testing human perception**

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

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

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#### **Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids**

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

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

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

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

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

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

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

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

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

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**Evaluation of dry electrodes in canine heart rate monitoring**

Virtanen, J., Somppi, S., Törnqvist, H., Jeyhani, V., Fiedler, P., Gizatdinova, Y., Majaranta, P., Väättäjä, H., Cardó, A. V., Lekkala, J., Tuukkanen, S., Surakka, V., Vainio, O. & Vehkaoja, A., 1 Jun 2018, In : Sensors. 18, 6, 1757.  
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**Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the TiO<sub>2</sub>-Phthalocyanine Interface**

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**A Ceramide-Regulated Element in the Late Endosomal Protein LAPT4B Controls Amino Acid Transporter Interaction**

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

Raappana, M., Polojärvi, V., Aho, A., Mäkelä, J., Aho, T., Tukiainen, A., Laukkanen, P. & Guina, M., 15 May 2018, In : Corrosion Science. 136, p. 268-274 7 p.  
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**Characteristics of nFOG, an aerosol-based wet thin film coating technique**

Harra, J., Tuominen, M., Juuti, P., Rissler, J., Koivuluoto, H., Haapanen, J., Niemelä-Anttonen, H., Stenroos, C., Teisala, H., Lahti, J., Kuusipalo, J., Vuoristo, P. & Mäkelä, J. M., May 2018, In : Journal of Coatings Technology Research. 15, 3, p. 623-632 10 p.  
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**Accurate Binding of Sodium and Calcium to a POPC Bilayer by Effective Inclusion of Electronic Polarization**

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

Khan, M., Koivisto, J., Hukka, T., Hokka, M. & Kellomäki, M., 11 Apr 2018, In : ACS Applied Materials & Interfaces. 10, 14, p. 11950-11960  
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**Membrane bound COMT isoform is an interfacial enzyme: General mechanism and new drug design paradigm**

Magarkar, A., Parkkila, P., Viitala, T., Lajunen, T., Mobarak, E., Licari, G., Cramariuc, O., Vauthey, E., Róg, T. & Bunker, A., 11 Apr 2018, In : Chemical Communications. 54, 28, p. 3440-3443 4 p.  
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#### **Properties of HVOF-sprayed Stellite-6 coatings**

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

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#### **Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing**

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#### **Improving the high temperature abrasion resistance of thermally sprayed Cr<sub>3</sub>C<sub>2</sub>-NiCr coatings by WC addition**

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

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

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

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#### **Improved Stability of Atomic Layer Deposited Amorphous TiO<sub>2</sub> Photoelectrode Coatings by Thermally Induced Oxygen Defects**

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

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

Mehrang, S., Pietilä, J. & Korhonen, I., 22 Feb 2018, In : Sensors. 18, 2, 613.

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

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

Vale, J. R., Rimpiläinen, T., Sievänen, E., Rissanen, K., Afonso, C. A. M. & Candeias, N. R., 16 Feb 2018, In : Journal of Organic Chemistry. 83, 4, p. 1948-1958 11 p.

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

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

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

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

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#### **Controlled Growth of Supported ZnO Inverted Nanopyramids with Downward Pointing Tips**

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

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

Das, A., Sallat, A., Böhme, F., Sarlin, E., Vuorinen, J., Vennemann, N., Heinrich, G. & Stöckelhuber, K. W., 19 Jan 2018, In : *Polymers*. 10, 1, 94.

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

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

Kato, D., Sakai, H., Araki, Y., Wada, T., Tkachenko, N. V. & Hasobe, T., 1 Jan 2018, In : *Physical Chemistry Chemical Physics*. 20, 13, p. 8695-8706 12 p.

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., 1 Jan 2018, In : *RSC Advances*. 8, 34, p. 19226-19236 11 p.

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

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

Saccone, M., Kuntze, K., Ahmed, Z., Siiskonen, A., Giese, M. & Priimagi, A., 1 Jan 2018, In : *Journal of Materials Chemistry C*. 6, 37, p. 9958-9963 6 p.

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

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

Shakun, A., Poikelispää, M., Das, A. & Vuorinen, J., 2018, In : *Polymer Engineering and Science*. 58, 3, 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, R., Rainosalu, E., Thomas, S. P., Ramamoorthy, S. K., Zavašnik, J., Vuorinen, J. & Skrifvars, M., 2018, In : *Polymer Bulletin*. 75, 1, p. 167-195 29 p.

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

**Adsorption of furfural from torrefaction condensate using torrefied biomass**

Doddapaneni, T. R. K. C., Jain, R., Praveenkumar, R., Rintala, J., Romar, H. & Kontinen, J., 2018, In : *Chemical Engineering Journal*. 334, p. 558-568 11 p.

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

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

Honkanen, M., Wang, J., Kärkkäinen, M., Huuhtanen, M., Jiang, H., Kallinen, K., Keiski, R. L., Akola, J. & Vippola, M., 2018, In : *Journal of Catalysis*. 358, p. 253-265 13 p.

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, P., Porca, E., Haavisto, J., Lakaniemi, A-M., Collins, G. & Lens, P. N. L., 2018, In : *RSC Advances*. 8, 6, p. 3069-3080 12 p.

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

**Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt**

Ojha, N., Nguyen, H., Laihininen, T., Salminen, T., Lastusaari, M. & Petit, L., 2018, In : *Corrosion Science*. 135, p. 207-214

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

**Convenient extraction method for quantification of thin zinc patina layers**

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

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

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

Rokade, S. S., Joshi, K. A., Mahajan, K., Patil, S., Tomar, G., Dubal, D. S., Parihar, V. S., Kitture, R., Bellare, J. R. & Ghosh, S., 2018, In : Bioinorganic Chemistry and Applications. 2018, 4924186.

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

**A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances**

Tienaho, J., Poikulainen, E., Sarjala, T., Muilu-Mäkelä, R., Santala, V. & Karp, M., 2018, In : Photochemistry and Photobiology. 94, 6, p. 1273-1280

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

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

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

Nykänen, H., Mpamah, P. A. & Rissanen, A. J., 2018, In : Isotopes in Environmental and Health Studies. 54, 6

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**Optical frequency comb photoacoustic spectroscopy**

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

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

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

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

Virkki, M., Maurice, A., Forni, A., Sironi, M., Dichiarante, V., Brevet, P. F., Metrangolo, P., Kauranen, M. & Priimagi, A., 2018, In : Physical Chemistry Chemical Physics. 20, 45, p. 28810-28817 8 p.

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

Saarimaa, V., Kaleva, A., Nikkanen, J-P., Heinonen, S., Levänen, E., Väisänen, P., Markkula, A. & Juhanoja, J., 15 Dec 2017, In : Surface and Coatings Technology. 331, p. 137-142 6 p.

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

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

Lisitsyna, E. S., Ketola, T-M., Morin-Picardat, E., Liang, H., Hanzlíková, M., Urtti, A., Yliperttula, M. & Vuorimaa-Laukkanen, E., 7 Dec 2017, In : Journal of Physical Chemistry B. 121, 48, p. 10782-10792 11 p.

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**Mapping microscale wetting variations on biological and synthetic water-repellent surfaces**

Liimatainen, V., Vuckovac, M., Jokinen, V., Sariola, V., Hokkanen, M. J., Zhou, Q. & Ras, R. H. A., 1 Dec 2017, In : Nature Communications. 8, 1, 1798.

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

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

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

Danne, R., Poojari, C., Martinez-Seara, H., Rissanen, S., Lolicato, F., Róg, T. & Vattulainen, I., 23 Oct 2017, In : Journal of Chemical Information and Modeling. 57, 10, p. 2401-2406 6 p.

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**Systematic analysis of coating-substrate interactions in the presence of flow localization**

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**Membrane Binding of Recoverin: From Mechanistic Understanding to Biological Functionality**

Timr, Š., Pleskot, R., Kadlec, J., Kohagen, M., Magarkar, A. & Jungwirth, P., 23 Aug 2017, In : ACS Central Science. 3, 8, p. 868-874 7 p.

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**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., 15 Aug 2017, In : Fuel. 202, p. 154-164 11 p.

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**Feed-hopper level estimation and control in cone crushers**

Itävuori, P., Hulthén, E. & Viikko, M., 15 Aug 2017, In : Minerals Engineering. 110, p. 82-95 14 p.

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

Rahaman, O., Kalimeri, M., Katava, M., Paciaroni, A. & Sterpone, F., 20 Jul 2017, In : Journal of Physical Chemistry Part B. 121, 28, p. 6792-6798 7 p.

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**Vegetable fillers for electric stimuli responsive elastomers**

Poikelispää, M., Shakun, A., Sarlin, E., Das, A. & Vuorinen, J., 20 Jul 2017, In : Journal of Applied Polymer Science. 134, 28, 45081.

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**Electropolymerized polyazulene as active material in flexible supercapacitors**

Suominen, M., Lehtimäki, S., Yewale, R., Damlin, P., Tuukkanen, S. & Kvarnström, C., 15 Jul 2017, In : Journal of Power Sources. 356, p. 181-190 10 p.

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

Nogueira, I. B. R., Ribeiro, A. M., Martins, M. A. F., Rodrigues, A. E., Koivisto, H. & Loureiro, J. M., 30 Jun 2017, In : Journal of Chromatography A. 1504

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

Baek, J., Umeyama, T., Stranius, K., Yamada, H., Tkachenko, N. V. & Imahori, H., 29 Jun 2017, In : Journal of Physical Chemistry C. 121, 25, p. 13952-13961 10 p.

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**Comparison of starch and gelatin hydrogels for non-toxic supercapacitor electrolytes**

Railanmaa, A., Lehtimäki, S. & Lupo, D., 1 Jun 2017, In : Applied Physics A-Materials Science and Processing. 123, 6, 459.

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

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

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Goh, J.-Q., Akola, J. & Ferrando, R., 25 May 2017, In : Journal of Physical Chemistry C. 121, 20, p. 10809-10816 8 p.

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**Nematicon-enhanced spontaneous symmetry breaking**

Piccardi, A., Alberucci, A., Kravets, N., Buchnev, O. & Assanto, G., 24 May 2017, In : Molecular Crystals and Liquid Crystals. 649, 1, p. 59-65 7 p.

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

**Density functional study of structure and dynamics in liquid antimony and Sb<sub>n</sub> clusters**

Jones, R. O., Ahlstedt, O., Akola, J. & Ropo, M., 21 May 2017, In : Journal of Chemical Physics. 146, 19, 194502.

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**The effects of calcium and potassium on CO<sub>2</sub> gasification of birch wood in a fluidized bed**

Kramb, J., Gómez-Barea, A., DeMartini, N., Romar, H., Doddapaneni, T. R. K. C. & Kontinen, J., 15 May 2017, In : Fuel. 196, p. 398-407 10 p.

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

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

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

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

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

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

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**Hexaphyrin as a Potential Theranostic Dye for Photothermal Therapy and <sup>19</sup>F Magnetic Resonance Imaging**

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

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

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

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

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

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

### **Membrane cholesterol access into a G-protein-coupled receptor**

Guixà-González, R., Albasanz, J. L., Rodríguez-Espigares, I., Pastor, M., Sanz, F., Martí-Solano, M., Manna, M., Martínez-Seara, H., Hildebrand, P. W., Martín, M. & Selent, J., 21 Feb 2017, In : Nature Communications. 8, 14505.  
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### **Magnetic routing of light-induced waveguides**

Izdebskaya, Y., Shvedov, V., Assanto, G. & Krolikowski, W., 15 Feb 2017, In : Nature Communications. 8, 14452.  
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### **Benchmarking DFT methods with small basis sets for the calculation of halogen-bond strengths**

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### **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., Feb 2017, In : Journal of Luminescence. 182, p. 49-52 4 p.  
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### **Architectures and codecs for real-time light field streaming**

Kovács, P. T., Zare, A., Balogh, T., Bregovic, R. & Gotchev, A., 1 Jan 2017, In : Journal of Imaging Science and Technology. 61, 1, 010403.  
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### **Improved corrosion properties of Hot Dip Galvanized Steel by nanomolecular silane layers as hybrid interface between zinc and top coatings**

Vuori, L., Ali-Löytty, H., Lahtonen, K., Hannula, M., Lehtonen, E., Niu, Y. & Valden, M., 2017, In : Corrosion. 73, 2  
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### **Synthesis, Structural Characterization, Hirshfeld Surface and Antioxidant Activity Analysis of a Novel Organic Cation Antimonate Complex**

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### **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., 2017, In : Physical Chemistry Chemical Physics. 19, 16, p. 10511-10517 7 p.  
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### **High-resolution coded-aperture design for compressive X-ray tomography using low resolution detectors**

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

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### **Two cations, two mechanisms: Interactions of sodium and calcium with zwitterionic lipid membranes**

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

Vapaavuori, J., Siiskonen, A., Dichiarante, V., Forni, A., Saccone, M., Pilati, T., Pellerin, C., Shishido, A., Metrangolo, P. & Priimägi, A., 2017, In : RSC Advances. 7, 64, p. 40237-40242 6 p.  
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**Photoresponsive ionic liquid crystals assembled: Via halogen bond: En route towards light-controllable ion transporters**  
Saccone, M., Palacio, F. F., Cavallo, G., Dichiarante, V., Virkki, M., Terraneo, G., Priimagi, A. & Metrangolo, P., 2017, In : Faraday Discussions. 203, p. 407-422 16 p.  
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**Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems**  
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**Design of a 25 MWe Solar Thermal Power Plant in Iran with Using Parabolic Trough Collectors and a Two-Tank Molten Salt Storage System**  
Kordmahaleh, A. A., Naghashzadegan, M., Javaherdeh, K. & Khoshgoftar, M., 2017, In : International Journal of Photoenergy. 2017, 4210184.  
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**Particle emissions characterization from a medium-speed marine diesel engine with two fuels at different sampling conditions**  
Ntziachristos, L., Saukko, E., Lehtoranta, K., Rönkkö, T., Timonen, H., Simonen, P., Karjalainen, P. & Keskinen, J., 15 Dec 2016, In : Fuel. 186, p. 456-465 10 p.  
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**Optimization of HVOF Cr<sub>3</sub>C<sub>2</sub>-NiCr coating for increased fatigue performance**  
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**Collective excitations and viscosity in liquid Bi**  
Ropo, M., Akola, J. & Jones, R. O., 14 Nov 2016, In : Journal of Chemical Physics. 145, 18, 184502.  
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**Improvement of actuation performance of dielectric elastomers by barium titanate and carbon black fillers**  
Poikelispää, M., Shakun, A., Das, A. & Vuorinen, J., 10 Nov 2016, In : Journal of Applied Polymer Science. 133, 42, 44116.  
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**Grain orientation dependent Nb-Ti microalloying mediated surface segregation on ferritic stainless steel**  
Ali-Löytty, H., Hannula, M., Honkanen, M., Östman, K., Lahtonen, K. & Valden, M., Nov 2016, In : Corrosion Science. 112, p. 204-213  
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**UPS and DFT investigation of the electronic structure of gas-phase trimesic acid**  
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**Increased survival rate by local release of diclofenac in a murine model of recurrent oral carcinoma**  
Will, O. M., Purcz, N., Chalaris, A., Heneweer, C., Boretius, S., Purcz, L., Nikkola, L., Ashammakhi, N., Kalthoff, H., Glüer, C. C., Wiltfang, J., Açil, Y. & Tiwari, S., 12 Oct 2016, In : International Journal of Nanomedicine. 11, p. 5311-5321 11 p.  
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**Elimination of arsenic-containing emissions from gasification of chromated copper arsenate wood**  
Kramb, J., Konttinen, J., Backman, R., Salo, K. & Roberts, M., 1 Oct 2016, In : Fuel. 181, p. 319-324 6 p.  
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### **Controlling the motion of multiple objects on a Chladni plate**

Zhou, Q., Sariola, V., Latifi, K. & Liimatainen, V., 9 Sep 2016, In : Nature Communications. 7, 12764.  
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### **Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers**

Robison, A. D., Sun, S., Poyton, M. F., Johnson, G. A., Pellois, J. P., Jungwirth, P., Vazdar, M. & Cremer, P. S., 8 Sep 2016, In : Journal of Physical Chemistry Part B. 120, 35, p. 9287-9296 10 p.  
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### **3D micro-nano structured hybrid scaffolds: An investigation into the role of nanofiber coating on viability, proliferation and differentiation of seeded mesenchymal stem cells**

Pilehrood, M. K., Atashi, A., Sadeghi-Aliabadi, H., Nousiainen, P. & Harlin, A., 1 Sep 2016, In : Journal Nanoscience and Nanotechnology. 16, 9, p. 9000-9007 8 p.  
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### **Detergent impurity effect on recycled HDPE: Properties after repetitive processing**

Mylläri, V., Hartikainen, S., Poliakova, V., Anderson, R., Jönkkäri, I., Pasanen, P., Andersson, M. & Vuorinen, J., 15 Aug 2016, In : Journal of Applied Polymer Science. 133, 31, 43766.  
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### **Buckling Behavior of Cold-Formed Studs with Thermal Perforations**

Garifullin, M., Sinelnikov, A., Bronzova, M., Kovacic, B. & Kamnik, R., 11 Aug 2016, In : MATEC Web of Conferences. 73, 04011.  
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### **Reinforced chloroprene rubber by in situ generated silica particles: Evidence of bound rubber on the silica surface**

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### **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., 1 Jul 2016, In : Nanotechnology. 27, 32, 325603.  
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., 1 Jul 2016, In : Topics in Catalysis. 59, 10-12, p. 1044-1048 5 p.  
Research output: Contribution to journal > Article > Scientific > peer-review

### **Structurally Controlled Dynamics in Azobenzene-Based Supramolecular Self-Assemblies in Solid State**

Poutanen, M., Ikkala, O. & Priimägi, A., 14 Jun 2016, In : Macromolecules. 49, 11, p. 4095-4101 7 p.  
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, E., Huttunen-Saarivirta, E. & Kuokkala, V-T., 1 Jun 2016, In : Corrosion. 72, 6, p. 732-741 10 p.  
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### **Robust statistical approaches for RSS-based floor detection in indoor localization**

Razavi, A., Valkama, M. & Lohan, E. S., 1 Jun 2016, In : Sensors. 16, 6, 793.  
Research output: Contribution to journal > Article > Scientific > peer-review

### **Effect of incorporation of CdS NPs on performance of PTB7: PCBM organic solar cells**

Sharma, R., Bhalerao, S. & Gupta, D., 1 Jun 2016, In : Organic Electronics: physics, materials, applications. 33, p. 274-280 7 p.  
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, A. M., Koivisto, J. T., Parraga, J. E., Silva-Correia, J., Oliveira, J. M., Reis, R. L., Kellomäki, M., Hyttinen, J. & Figueiras, E., 24 May 2016, In : *Langmuir*. 32, 20, p. 5173-5182 10 p.

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, C., Scalisi, S., Lolicato, F., Pannuzzo, M. & Raudino, A., 14 May 2016, In : *Journal of Chemical Physics*. 144, 18, p. 184901.

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, H., Sariola-Leikas, E., Efimov, A. & Tkachenko, N. V., 21 Apr 2016, In : *Journal of Physical Chemistry C*. 120, 13, p. 7044-7051 8 p.

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, L., Norpoth, J., Trache, R. & Berger, L. M., 15 Apr 2016, In : *Surface and Coatings Technology*. 291, p. 444-451 8 p.

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

**Coordination networks incorporating halogen-bond donor sites and azobenzene groups**

Fernandez-Palacio, F., Saccone, M., Priimägi, A., Terraneo, G., Pilati, T., Metrangolo, P. & Resnati, G., 7 Apr 2016, In : *CrystEngComm*. 18, 13, p. 2251-2257 7 p.

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**Strain rate change tests with the Split Hopkinson Bar method**

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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, L., Melander, M., Weckman, T., Lipasti, S., Laasonen, K. & Akola, J., 1 Apr 2016, In : *Journal of Molecular Graphics and Modelling*. 65, p. 61-70 10 p.

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**Microwave assisted laser-induced breakdown spectroscopy at ambient conditions**

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**Metal chalcogenide quantum dots: Biotechnological synthesis and applications**

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

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

Sakuma, T., Sakai, H., Araki, Y., Mori, T., Wada, T., Tkachenko, N. V. & Hasobe, T., 31 Mar 2016, In : *Journal of Physical Chemistry A*. 120, 11, p. 1867-1875 9 p.

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**Stability and Function at High Temperature. What Makes a Thermophilic GTPase Different from Its Mesophilic Homologue**

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#### **HPLC-SEC: a new approach to characterise complex wastewater effluents**

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

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#### **Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction**

Ali-Löytty, H., Louie, M. W., Singh, M. R., Li, L., Sanchez Casalongue, H. G., Ogasawara, H., Crumlin, E. J., Liu, Z., Bell, A. T., Nilsson, A. & Friebel, D., 4 Feb 2016, In : Journal of Physical Chemistry C. 120, 4, p. 2247-2253 7 p.

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#### **Heat capacities of crystalline and glassy lithium metaphosphate up to the transition region**

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

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

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

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

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#### **The electrooxidation-induced structural changes of gold di-superatomic molecules: Au<sub>23</sub> vs. Au<sub>25</sub>**

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### **High-Yield Excited Triplet States in Pentacene Self-Assembled Monolayers on Gold Nanoparticles through Singlet Exciton Fission**

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

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

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

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

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

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

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**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., 13 Nov 2015, In : RSC Advances. 5, 123, p. 101401-101407 7 p.

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

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### **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, D., Carraro, G., Warwick, M. E. A., Kaunisto, K., Gasparotto, A., Gombac, V., Sada, C., Turner, S., Van Tendeloo, G., Maccato, C. & Fornasiero, P., 28 Aug 2015, In : CrystEngComm. 17, 32, p. 6219-6226 8 p.  
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### **Electrospun Black Titania Nanofibers: Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance**

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

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

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### **Responsive Polymer Photonics**

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

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

#### **Quantifying non-ergodic dynamics of force-free granular gases**

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

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

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

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

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

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

Rahaman, O., Kalimeri, M., Melchionna, S., Hénin, J. & Sterpone, F., 23 Jul 2015, In : Journal of Physical Chemistry Part B. 119, 29, p. 8939-8949 11 p.

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

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

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

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

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

Hakkarainen, T. V., Schramm, A., Mäkelä, J., Laukkanen, P. & Guina, M., 18 Jul 2015, In : Nanotechnology. 26, 27, p. 275301.

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

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

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

Ahmed, Z., George, L., Hiltunen, A., Lemmetyinen, H., Hukka, T. & Efimov, A., 7 Jul 2015, In : Journal of Materials Chemistry A. 3, 25, p. 13332-13339 8 p.

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

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

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

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

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

Mylläri, V., Ruoko, T-P. & Syrjälä, S., 1 Jul 2015, In : Journal of Applied Polymer Science. 132, 28, 6 p., 42246.

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

#### **On the biomaterials for nanostructured ocular therapeutics**

Zorzi, G. K., Párraga, J. E., Seijo, B. & Sánchez, A., 1 Jul 2015, In : Current Organic Chemistry. 19, 15, p. 1443-1459 17 p.

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

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

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

**Catalytic effect of Ca and K on 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., 15 Jun 2015, In : Fuel. 150, p. 464-472 9 p.

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

**Inverted critical adsorption of polyelectrolytes in confinement**

De Carvalho, S. J., Metzler, R. & Cherstvy, A. G., 14 Jun 2015, In : Soft Matter. 11, 22, p. 4430-4443 14 p.

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

**PEGylated liposomes as carriers of hydrophobic porphyrins**

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

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

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

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

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

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

He, X., Benniston, A. C., Saarenpää, H., Lemmetyinen, H., Tkachenko, N. V. & Baisch, U., 1 Jun 2015, In : Chemical Science. 6, 6, p. 3525-3532 8 p.

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

**Photodiagnostic et chirurgie guidés par la fluorescence**

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

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

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

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

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

**La thérapie photodynamique: État de l'art et perspectives**

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

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

**A facile route to synthesis of S-doped TiO<sub>2</sub> nanoparticles for photocatalytic activity**

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

Hladílková, J., Fischer, H. E., Jungwirth, P. & Mason, P. E., 28 May 2015, In : Journal of Physical Chemistry Part B. 119, 21, p. 6357-6365 9 p.

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., 28 May 2015, In : DOKLADY PHYSICAL CHEMISTRY. 462, 1, p. 107-109 3 p.

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**Effect of melting state on the thermal shock resistance and thermal conductivity of APS ZrO<sub>2</sub>-7.5wt.% Y<sub>2</sub>O<sub>3</sub> coatings**

Song, X., Liu, Z., Suhonen, T., Varis, T., Huang, L., Zheng, X. & Zeng, Y., 25 May 2015, In : Surface and Coatings Technology. 270, p. 132-138 7 p.

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**Modeling photoionization of aqueous DNA and its components**

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**Multistep reactions of water with small Pd<sub>n</sub> clusters: A first principles study**

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**Energy degradation in photoexcited complexes of indocarbocyanine with albumin**

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**Ergodicity breaking and particle spreading in noisy heterogeneous diffusion processes**

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

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

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**Rate constant and thermochemistry for K + O<sub>2</sub> + N<sub>2</sub> = KO<sub>2</sub> + N<sub>2</sub>**

Sorvajärvi, T., Viljanen, J., Toivonen, J., Marshall, P. & Glarborg, P., 9 Apr 2015, In : Journal of Physical Chemistry A. 119, 14, p. 3329-3336 8 p.

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

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

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

Saarikoski, E., Rissanen, M. & Seppälä, J., 30 Mar 2015, In : Carbohydrate Polymers. 119, p. 62-70 9 p.

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

Pirjola, L., Karjalainen, P., Heikkilä, J., Saari, S., Tzamkiozis, T., Ntziachristos, L., Kulmala, K., Keskinen, J. & Rönkkö, T., 17 Mar 2015, In : Environmental Science and Technology. 49, 6, p. 3644-3652 9 p.

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**Tribology of HVOF- and HVOF-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., Sassetelli, P., Trache, R. & Vuoristo, P., 15 Mar 2015, In : Surface and Coatings Technology. 265, p. 125-144 20 p.

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**

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**Oxidation of the GaAs semiconductor at the Al<sub>2</sub>O<sub>3</sub>/GaAs junction**

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

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**CO oxidation catalyzed by neutral and anionic Cu<sub>20</sub> clusters: Relationship between charge and activity**

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

Figueira, J., Czardybon, W., Mesquita, J. C., Rodrigues, J., Lahoz, F., Russo, L., Valkonen, A. & Rissanen, K., 7 Mar 2015, In : DALTON TRANSACTIONS. 44, 9, p. 4003-4015 13 p.

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

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

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

Wecharine, I., Valkonen, A., Rzaigui, M., Sta, W. S. & Smith, G., 1 Mar 2015, In : Acta Crystallographica Section E : Structure Reports Online. 71, 3, p. o193-o194

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

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

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

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

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**Neutralized chimeric avidin binding at a reference biosensor surface**

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

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

Beyeh, N. K., Pan, F., Valkonen, A. & Rissanen, K., 7 Feb 2015, In : CrystEngComm. 17, 5, p. 1182-1188 7 p.

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

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

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

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

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

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

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

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**Silver sulfide nanoclusters and the superatom model**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Photophysical properties of Sn (IV)tetraphenylporphyrin-pyrene dyad with a  $\beta$ -vinyl linker**

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

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

**Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as  $\pi$ -acceptors for anions**

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**A comparison of five optical surface topography measurement methods**

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

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**Appropriate pricing policy needed worldwide for improving water services infrastructure**

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

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**$\pi$ -Expanded  $\alpha,\beta$ -unsaturated ketones: Synthesis, optical properties, and two-photon-induced polymerization**

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

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

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

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**Ballistic and numerical simulation of impacting goods on conveyor belt rubber**

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**Synthesis of fluorescent naphthoquinolizines via intramolecular houben-hoesch reaction**

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

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

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

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**Chemolithotrophic denitrification in biofilm reactors**

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

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

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

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

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

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**Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels**

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

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

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

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

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

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

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

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

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

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**Time-resolved fluorescence methods (IUPAC technical report)**

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

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

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

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**A supramolecular approach to photoresponsive thermo/solvoplastic block copolymer elastomers**

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

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

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

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

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

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

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### **Pyrene based conjugated materials: Synthesis, characterization and electroluminescent properties**

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

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

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

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

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

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

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

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

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

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

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**Light-fuelled transport of large dendrimers and proteins**

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

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

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

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**A full-potential linearized augmented plane wave study of the interaction of CO<sub>2</sub> with α-Pu (020) surface nanolayers**

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

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

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

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

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

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

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

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

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

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**Location of dispersing agent in rubber nanocomposites during mixing process**

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

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**Effect of surface morphology of poly( $\epsilon$ -caprolactone) scaffolds on adipose stem cell adhesion and proliferation**

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

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

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

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

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

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**Development and characterization of poly( $\epsilon$ -caprolactone) hollow fiber membranes for vascular tissue engineering**

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

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

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

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

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

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**Site-specific analysis of dipole polarizabilities of heterogeneous systems: Iron-doped Si<sub>n</sub> (n = 1-14) clusters**

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

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

Vazdar, M., Jungwirth, P. & Mason, P. E., 14 Feb 2013, In : Journal of Physical Chemistry Part B. 117, 6, p. 1844-1848 5 p.

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

Fafarman, A. T., Hong, S. H., Caglayan, H., Ye, X., Diroll, B. T., Paik, T., Engheta, N., Murray, C. B. & Kagan, C. R., 13 Feb 2013, In : Nano Letters. 13, 2, p. 350-357 8 p.

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

**Growth behavior and magnetic properties of spherical uranium oxide nanoclusters**

Ma, L. & Ray, A. K., Feb 2013, In : Journal of Computational and Theoretical Nanoscience. 10, 2, p. 334-340 7 p.

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

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**Networking of ionic liquid modified CNTs in SSBR**

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

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

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

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

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

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

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

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

**Semiclassical hybrid approach to condensed phase molecular dynamics: Application to the  $I_2Kr_{17}$  cluster**

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

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

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

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

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

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

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

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**Azobenzene photomechanics: Prospects and potential applications**

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

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

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

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

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

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

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

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**Molecular mechanisms of ion-specific effects on proteins**

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

Priimagi, A., Cavallo, G., Forni, A., Gorynsztejn-Leben, M., Kaivola, M., Metrangolo, P., Milani, R., Shishido, A., Pilati, T., Resnati, G. & Terraneo, G., 20 Jun 2012, In : Advanced Functional Materials. 22, 12, p. 2572-2579 8 p.

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**Behavior of 4-hydroxynonenal in phospholipid membranes**

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#### **Elemental and mixed actinide dioxides: An ab initio study**

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

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

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

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

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

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

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

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

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

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

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#### **Chasing charge localization and chemical reactivity following photoionization in liquid water**

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

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

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

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

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

Subramaniam, K., Das, A., Steinhauser, D., Klüppel, M. & Heinrich, G., Dec 2011, In : European Polymer Journal. 47, 12, p. 2234-2243 10 p.

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

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

Li, Y., Tao, S. C., Bova, G. S., Liu, A. Y., Chan, D. W., Zhu, H. & Zhang, H., 15 Nov 2011, In : Analytical Chemistry. 83, 22, p. 8509-8516 8 p.

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**Oriental dependence of the affinity of guanidinium ions to the water surface**

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**The effect of lipid oxidation on the water permeability of phospholipids bilayers**

Lis, M., Wizert, A., Przybylo, M., Langner, M., Swiatek, J., Jungwirth, P. & Cwiklik, L., 21 Oct 2011, In : Physical Chemistry Chemical Physics. 13, 39, p. 17555-17563 9 p.

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

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**Like-charge guanidinium pairing from molecular dynamics and ab initio calculations**

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**Versatile bio-ink for covalent immobilization of chimeric avidin on sol-gel substrates**

Heikkinen, J. J., Kivimäki, L., Määttä, J. A. E., Mäkelä, I., Hakalahti, L., Takkinen, K., Kulomaa, M. S., Hytönen, V. P. & Hormi, O. E. O., 15 Oct 2011, In : Colloids and Surfaces B: Biointerfaces. 87, 2, p. 409-414 6 p.

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

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

Roos, S., Das, A. & Heinrich, G., Sep 2011, In : European Polymer Journal. 47, 9, p. 1746-1755 10 p.

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**Towards universal enrichment nanocoating for IR-ATR waveguides**

Giammarco, J., Zdyrko, B., Petit, L., Musgraves, J. D., Hu, J., Agarwal, A., Kimerling, L., Richardson, K. & Luzinov, I., 28 Aug 2011, In : Chemical Communications. 47, 32, p. 9104-9106 3 p.

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**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, F., Marsalek, O. & Jungwirth, P., 21 Aug 2011, In : Physical Chemistry Chemical Physics. 13, 31, p. 14003-14009 7 p.

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**Urea and guanidinium induced denaturation of a Trp-cage miniprotein**

Heyda, J., Kožíšek, M., Bednárova, L., Thompson, G., Konvalinka, J., Vondrášek, J. & Jungwirth, P., 21 Jul 2011, In : Journal of Physical Chemistry Part B. 115, 28, p. 8910-8924 15 p.

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**Defined-size DNA triple crossover construct for molecular electronics: Modification, positioning and conductance properties**

Linko, V., Leppiniemi, J., Paasonen, S. T., Hytönen, V. P. & Jussi Toppari, J., 8 Jul 2011, In : Nanotechnology. 22, 27, 275610.

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

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**Steric and electronic effects in the host-guest hydrogen bonding in clathrate hydrates**

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**Behavior of  $\beta$ -amyloid 1-16 at the air-water interface at varying pH by nonlinear spectroscopy and molecular dynamics simulations**

Miller, A. E., Petersen, P. B., Hollars, C. W., Saykally, R. J., Heyda, J. & Jungwirth, P., 16 Jun 2011, In : Journal of Physical Chemistry A. 115, 23, p. 5873-5880 8 p.

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**Behavior of the eigen form of hydronium at the air/water interface**

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**Preparation of zinc oxide free, transparent rubber nanocomposites using a layered double hydroxide filler**

Das, A., Wang, D. Y., Leuteritz, A., Subramaniam, K., Greenwell, H. C., Wagenknecht, U. & Heinrich, G., 28 May 2011, In : Journal of Materials Chemistry. 21, 20, p. 7194-7200 7 p.

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**Detection of DNA hybridisation in a diluted serum matrix by surface plasmon resonance and film bulk acoustic resonators**

Auer, S., Nirschl, M., Schreiter, M. & Vikholm-Lundin, I., May 2011, In : Analytical and Bioanalytical Chemistry. 400, 5, p. 1387-1396 10 p.

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