

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

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

Optimization of photogenerated charge carrier lifetimes in ald grown tio₂ for photonic applications

Khan, R., Ali-Löyty, H., Saari, J., Valden, M., Tukiainen, A., Lahtonen, K. & Tkachenko, N. V., 10 Aug 2020, In : Nanomaterials. 10, 8, 9 p., 1567.

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

Nucleation and growth behavior of Er³⁺ doped oxyfluorophosphate glasses

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

Additive manufacturing of monolithic supercapacitors with biopolymer separator

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Modular Instrumentation for Controlling and Monitoring In-Vitro Cultivation Environment and Image-based Functionality Measurements of Human Stem Cells

Kattipparambil Rajan, D., 27 May 2020, Tampere University. (Tampere University Dissertations; vol. 256)

Research output: Book/Report › Doctoral thesis › Collection of Articles

Utilizing Gelatinized Starchy Waste from Rice Noodle Factory as Substrate for L(+)-Lactic Acid Production by Amyolytic Lactic Acid Bacterium Enterococcus faecium K-1

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

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

Utilizing Neurons for Digital Logic Circuits: A Molecular Communications Analysis

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Transparent Yb³⁺ doped phosphate glass-ceramics

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

Applications of nanocellulose/nanocarbon composites: Focus on biotechnology and medicine

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

CFD modeling the diffusional losses of nanocluster-sized particles and condensing vapors in 90° bends of circular tubes

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

Deformability analysis and improvement in stretchable electronics systems through finite element analysis

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

Ectopic Beat Detection from Wrist Optical Signals for Sinus Rhythm and Atrial Fibrillation Subjects

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

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

Moormann, W., Tellkamp, T., Stadler, E., Röhricht, F., Näther, C., Puttreddy, R., Rissanen, K., Gescheidt, G. & Herges, R., 2020, In : *Angewandte Chemie - International Edition*. 59, 35, p. 15081-15086 6 p.

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In-flight wind field identification and prediction of parafoil systems

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

Investigation of well-defined pinholes in TiO₂ electron selective layers used in planar heterojunction perovskite solar cells

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

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

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Alkane and wax ester production from lignin-related aromatic compounds

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

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The importance of controlled mismatch of biomechanical compliances of implantable scaffolds and native tissue for articular cartilage regeneration
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Research output: Contribution to journal › Article › Scientific › peer-review

Chromatographic studies of n-Propyl Propionate: Adsorption equilibrium, modelling and uncertainties determination
Nogueira, I. B. R., Faria, R. P. V., Requião, R., Koivisto, H., Martins, M. A. F., Rodrigues, A. E., Loureiro, J. M. & Ribeiro, A. M., 2 Nov 2018, In : *Computers and Chemical Engineering*. 119, p. 371-382 12 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.
Research output: Contribution to journal › Article › Scientific › peer-review

Novel osteoconductive β -tricalcium phosphate/poly(L-lactide-co- ϵ -caprolactone) scaffold for bone regeneration: a study in a rabbit calvarial defect
Pihlman, H., Keränen, P., Paakinaho, K., Linden, J., Hannula, M., Manninen, I. K., Hyttinen, J., Manninen, M. & Laitinen-Vapaavuori, O., 1 Oct 2018, In : *Journal of Materials Science: Materials in Medicine*. 29, 10, 156.
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Molecular Communications Pulse-based Jamming Model for Bacterial Biofilm Suppression
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Temperature control as key factor for optimal biohydrogen production from thermomechanical pulping wastewater
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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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A new method to optimize natural convection heat sinks

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

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

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

Fluid flow simulations meet high-speed video: Computer vision comparison of droplet dynamics

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

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

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Effects of wastewater constituents and operational conditions on the composition and dynamics of anodic microbial communities in bioelectrochemical systems

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

The effect of carbon and nickel additions on the precursor synthesis of Cr₃C₂-Ni nanopowder

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

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The effects of laser patterning 10CeTZP-Al₂O₃ nanocomposite disc surfaces: Osseous differentiation and cellular arrangement in vitro

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

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

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

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

Switchable light reflectance in dilute magneto-optical colloids based on nickel ferrite nanowires

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

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

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Aqueous synthesis of Z-scheme photocatalyst powders and thin-film photoanodes from earth abundant elements
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Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells

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

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Design, synthesis, and structure-property relationships of Er³⁺-doped TiO₂ luminescent particles synthesized by sol-gel

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A case study of focal bayesian EEG inversion for whitney element source spaces: Mesh-based vs. cartesian orientations

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

Addressing closed-chain dynamics for high-precision control of hydraulic cylinder actuated manipulators

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Adsorption of furfural from torrefaction condensate using torrefied biomass

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A neural network strategy for learning of nonlinearities toward feed-forward control of pressure-compensated hydraulic valves with a significant dead zone

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Artificial eye blink pacemaker - A first investigation into the blink production using constant-interval electrical stimulation

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Atrial fibrillation detection from wrist photoplethysmography data using artificial neural networks

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Automated pipeline for brain ROI analysis with results comparable to previous freehand measures in clinical settings

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

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Bilateral teleoperation of a hydraulic robotic manipulator in contact with physical and virtual constraints

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Bioactive glass induced osteogenic differentiation of human adipose stem cells is dependent on cell attachment mechanism and mitogen-activated protein kinases

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Comparison of linear and non-linear heart rate variability indices between preterm infants at their theoretical term age and full term newborns

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

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Computational model for multifocal imaging in optical projection tomography and numerical analysis of all-in-focus fusion in tomographic image reconstruction

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

Conjugated Heat Transfer Simulation of a Fin-and-Tube Heat Exchanger

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

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

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Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt

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Detection and assessment of sleep-disordered breathing with emfit mattress

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Direct position control of electro-hydraulic excavator

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Effect of N/S ratio on anoxic thiosulfate oxidation in a fluidized bed reactor: Experimental and artificial neural network model analysis

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Efficient photon upconversion at remarkably low annihilator concentrations in a liquid polymer matrix: when less is more
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Research output: Contribution to journal › Article › Scientific › peer-review

Electric field of eeg during anesthesia

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

Evaluating different shapes of cranial fixation mini-plates using finite element method

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Evaluation of the accuracy and reliability for photoplethysmography based heart rate and beat-to-beat detection during daily activities

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Fin-and-tube heat exchanger enhancement with a combined herringbone and vortex generator design

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Finite element mapping for efficient image reconstruction in rotational electrical impedance tomography

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Floating frame of reference formulation for a flexible manipulator with hydraulic actuation - Modelling and experimental validation

Mäkinen, P., Dmitrochenko, O. & Mattila, J., 2018, *BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018*. ASME

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High resolution E-jet printed temperature sensor on artificial skin

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Human activity recognition using a single optical heart rate monitoring wristband equipped with triaxial accelerometer

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

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Designing of Elastomer Nanocomposites: From Theory to Application

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

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

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The influence of high-temperature sulfuric acid solution ageing on the properties of laminated vinyl-ester joints

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

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

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Wetting hysteresis induced by temperature changes: Supercooled water on hydrophobic surfaces

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

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Human Adipose Stem Cells Differentiated on Braided Polylactide Scaffolds is a Potential Approach for Tendon Tissue Engineering

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Accelerated deactivation studies of the natural-gas oxidation catalyst-Verifying the role of sulfur and elevated temperature in catalyst aging

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

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

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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.

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

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

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

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

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

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

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

Chemolithotrophic denitrification in biofilm reactors

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

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

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

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

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

Efficient preparation of shuffled DNA libraries through recombination (Gateway) cloning

Lehtonen, S. I., Taskinen, B., Ojala, E., Kukkurainen, S., Rahikainen, R., Riihimäki, T. A., Laitinen, O. H., Kulomaa, M. S. & Hytönen, V. P., 2015, In : Protein Engineering Design and Selection. 28, 1, p. 23-28 6 p.

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

Enquête de la variabilité cycle-cycle du NO dans la combustion homogène

Karvountzis-Kontakiotis, A. & Ntziachristos, L., 2015, In : OIL AND GAS SCIENCE AND TECHNOLOGY : REVUE DE L'INSTITUT FRANCAIS DU PETROLE. 70, 1, p. 111-123 13 p.

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

Fungal treatment of landfill mining fine fraction to increase its stability and end-use potential

Palmroth, M. R. T., Mönkäre, T. J. & Steffen, K. T., 2015, *Book of abstracts of the 6th European Bioremediation Conference*. Kalogerakis, N., Fava, F. & Manousaki, E. (eds.). p. 47 169

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

Metals removal and recovery in bioelectrochemical systems: A review

Nancharaiyah, Y. V., Venkata Mohan, S. & Lens, P. N. L., 2015, In : *Bioresource Technology*. 195, p. 102-114 13 p.

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

Multifunctional ultrasmall nanoplatfoms for vascular-targeted interstitial photodynamic therapy of brain tumors guided by real-time MRI

Bechet, D., Auger, F., Couleaud, P., Marty, E., Ravasi, L., Durieux, N., Bonnet, C., Plénat, F., Frochot, C., Mordon, S., Tillement, O., Vanderesse, R., Lux, F., Perriat, P., Guillemain, F. & Barberi-Heyob, M., 2015, In : *NANOMEDICINE: NANOTECHNOLOGY BIOLOGY AND MEDICINE*. 11, 3, p. 657-670 14 p.

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

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

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

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

Stimuli-responsive photonic polymer coatings

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

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

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

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

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

Time-resolved fluorescence methods (IUPAC technical report)

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

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

Improved biomass and lipid production in a mixotrophic culture of *Chlorella* sp. KR-1 with addition of coal-fired flue-gas

Praveenkumar, R., Kim, B., Choi, E., Lee, K., Park, J. Y., Lee, J. S., Lee, Y. C. & Oh, Y. K., 1 Nov 2014, In : *Bioresource Technology*. 171, p. 500-505 6 p.

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

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

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

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

Mixotrophic cultivation of oleaginous *Chlorella* sp. KR-1 mediated by actual coal-fired flue gas for biodiesel production

Praveenkumar, R., Kim, B., Choi, E., Lee, K., Cho, S., Hyun, J. S., Park, J. Y., Lee, Y. C., Lee, H. U., Lee, J. S. & Oh, Y. K., 12 Sep 2014, In : *Bioprocess and Biosystems Engineering*. 37, 10, p. 2083-2094 12 p.

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

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

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

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

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

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

Light-fuelled transport of large dendrimers and proteins

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

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

Assessment of metabolic flux distribution in the thermophilic hydrogen producer *Caloramator celer* as affected by external pH and hydrogen partial pressure

Ciranna, A., Pawar, S. S., Santala, V., Karp, M. & van Niel, E. W. J., 28 Mar 2014, In : *Microbial Cell Factories*. 13, 1, 48.

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

Structure and barrier properties of human embryonic stem cell-derived retinal pigment epithelial cells are affected by extracellular matrix protein coating

Sorkio, A., Hongisto, H., Kaarniranta, K., Uusitalo, H., Juuti-Uusitalo, K. & Skottman, H., 1 Feb 2014, In : *Tissue Engineering Part A*. 20, 3-4, p. 622-634 13 p.

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

A 3D Alzheimer's disease culture model and the induction of P21-activated kinase mediated sensing in iPSC derived neurons

Zhang, D., Pekkanen-Mattila, M., Shahsavani, M., Falk, A., Teixeira, A. I. & Herland, A., Feb 2014, In : *Biomaterials*. 35, 5, p. 1420-1428 9 p.

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

Large-area arrays of three-dimensional plasmonic subwavelength-sized structures from azopolymer surface-relief gratings

Moerland, R. J., Koskela, J. E., Kravchenko, A., Simberg, M., Van Der Vegte, S., Kaivola, M., Priimagi, A. & Ras, R. H. A., 1 Jan 2014, In : *Materials Horizons*. 1, 1, p. 74-80 7 p.

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

Stearate Modified Zinc-Aluminum Layered Double Hydroxides and Acrylonitrile Butadiene Rubber Nanocomposites

Eshwaran, S. B., Basu, D., Kutlu, B., Leuteritz, A., Wagenknecht, U., Stöckelhuber, K. W., Naskar, K., Das, A. & Heinrich, G., Jan 2014, In : *Polymer-Plastics Technology and Engineering*. 53, 1, p. 65-73 9 p.

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

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

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

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

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

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

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

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

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

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

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

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

Nickel-based HVOF coatings promoting high temperature corrosion resistance of biomass-fired power plant boilers

Oksa, M., Auerkari, P., Salonen, J. & Varis, T., 2014, In : Fuel Processing Technology. 125, p. 236-245 10 p.

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

Repeated use of stable magnetic flocculant for efficient harvest of oleaginous *Chlorella* sp.

Lee, K., Lee, S. Y., Praveenkumar, R., Kim, B., Seo, J. Y., Jeon, S. G., Na, J. G., Park, J. Y., Kim, D. M. & Oh, Y. K., 2014, In : Bioresource Technology. 167, p. 284-290 7 p.

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

Magnetophoretic harvesting of oleaginous *Chlorella* sp. by using biocompatible chitosan/magnetic nanoparticle composites

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

Reversible biofunctionalization of surfaces with a switchable mutant of avidin

Pollheimer, P., Taskinen, B., Scherfler, A., Gusenkov, S., Creus, M., Wiesauer, P., Zauner, D., Schöffberger, W., Schwarzinger, C., Ebner, A., Tampé, R., Stutz, H., Hytönen, V. P. & Gruber, H. J., 16 Oct 2013, In : Bioconjugate Chemistry. 24, 10, p. 1656-1668 13 p.

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

Mechanisms of acceleration and retardation of water dynamics by ions

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

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

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

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

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

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

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

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

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

Bayr, S., Kaparaju, P. & Rintala, J., 1 May 2013, In : Chemical Engineering Journal. 223, p. 479-486 8 p.

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

Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group

Tan, M., Feng, Y., Wang, H., Zhang, L., Khan, M., Guo, J., Chen, Q. & Liu, J., May 2013, In : Macromolecular Research. 21, 5, p. 541-549 9 p.

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

The sensitivity of random polymer brush-lamellar polystyrene-*b*-polymethylmethacrylate block copolymer systems to process conditions

Borah, D., Rasappa, S., Senthamaraiannan, R., Shaw, M. T., Holmes, J. D. & Morris, M. A., 1 Mar 2013, In : Journal of Colloid and Interface Science. 393, 1, p. 192-202 11 p.

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

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

Rasappa, S., Borah, D., Faulkner, C. C., Lutz, T., Shaw, M. T., Holmes, J. D. & Morris, M. A., 15 Feb 2013, In : *Nanotechnology*. 24, 6, 065503.

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

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

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

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

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

Wang, H., Feng, Y., Zhao, H., Fang, Z., Khan, M. & Guo, J., Feb 2013, In : *Journal Nanoscience and Nanotechnology*. 13, 2, p. 1578-1582 5 p.

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

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

Kulig, W. & Agmon, N., Jan 2013, In : *Nature Chemistry*. 5, 1, p. 29-35 7 p.

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

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

Lahtinen, K., Lahti, J., Johansson, P., Seppänen, T. & Cameron, D. C., 2013, *14th European PLACE Conference 2013*. TAPPI Press, Vol. 1. p. 469-493 25 p.

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

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

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

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

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

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

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

Gao, W., Feng, Y., Lu, J., Khan, M. & Guo, J., Oct 2012, In : *Macromolecular Research*. 20, 10, p. 1063-1069 7 p.

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

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

Kousoulidou, M., Ntziachristos, L., Fontaras, G., Martini, G., Dilara, P. & Samaras, Z., Aug 2012, In : *Fuel*. 98, p. 88-94 7 p.

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

Molecular mechanisms of ion-specific effects on proteins

Rembert, K. B., Paterová, J., Heyda, J., Hilty, C., Jungwirth, P. & Cremer, P. S., 20 Jun 2012, In : *Journal of the American Chemical Society*. 134, 24, p. 10039-10046 8 p.

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

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

Wang, D. Y., Das, A., Leuteritz, A., Mahaling, R. N., Jehnichen, D., Wagenknecht, U. & Heinrich, G., 21 Apr 2012, In : RSC Advances. 2, 9, p. 3927-3933 7 p.

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

Demonstration of increased lipid accumulation potential of *stigeoclonium* sp., Kütz. BUM11007 under nitrogen starved regime: A new source of lipids for biodiesel production

Praveenkumar, R., Johncy, K., MubarakAli, D., Vijayan, D., Thajuddin, N. & Gunasekaran, M., Apr 2012, In : Journal of Biobased Materials and Bioenergy. 6, 2, p. 209-213 5 p.

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

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

Rooj, S., Das, A., Stöckelhuber, K. W., Reuter, U. & Heinrich, G., Apr 2012, In : Macromolecular Materials and Engineering. 297, 4, p. 369-383 15 p.

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

Human adipose tissue extract induces angiogenesis and adipogenesis in vitro

Sarkanen, J. R., Kaila, V., Mannerström, B., Rätty, S., Kuokkanen, H., Miettinen, S. & Ylikomi, T., 1 Jan 2012, In : Tissue Engineering Part A. 18, 1-2, p. 17-25 9 p.

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

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

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

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

Osteogenic medium is superior to growth factors in differentiation of human adipose stem cells towards boneforming cells in 3D culture

Tirkkonen, L., Haimi, S., Huttunen, S., Wolff, J., Pirhonen, E., Sándor, G. K. & Miettinen, S., 2012, In : European Cells and Materials. 25, p. 144-158 15 p.

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

Utilization of agrowaste polymers in PVC/NBR alloys: Tensile, thermal, and morphological properties

Mousa, A., Heinrich, G., Kretzschmar, B., Wagenknecht, U. & Das, A., 2012, In : INTERNATIONAL JOURNAL OF CHEMICAL ENGINEERING. 121496.

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

Screening ethnically diverse human embryonic stem cells identifies a chromosome 20 minimal amplicon conferring growth advantage

Amps, K., Andrews, P. W., Anyfantis, G., Armstrong, L., Avery, S., Baharvand, H., Baker, J., Baker, D., Munoz, M. B., Beil, S., Benvenisty, N., Ben-Yosef, D., Biancotti, J. C., Bosman, A., Brena, R. M., Brisson, D., Caisander, G., Camarasa, M. V., Chen, J., Chiao, E., Choi, Y. M., Choo, A. B. H., Collins, D., Colman, A., Crook, J. M., Daley, G. Q., Dalton, A., De Sousa, P. A., Denning, C., Downie, J., Dvorak, P., Montgomery, K. D., Feki, A., Ford, A., Fox, V., Fraga, A. M., Frumkin, T., Ge, L., Gokhale, P. J., Golan-Lev, T., Gourabi, H., Gropp, M., Guangxiu, L., Hampl, A., Harron, K., Healy, L., Herath, W., Holm, F., Hovatta, O., Hyllner, J., Inamdar, M. S., Irwanto, A. K., Ishii, T., Jaconi, M., Jin, Y., Kimber, S., Kiselev, S., Knowles, B. B., Kopper, O., Kukhareenko, V., Kuliev, A., Lagarkova, M. A., Laird, P. W., Lako, M., Laslett, A. L., Lavon, N., Lee, D. R., Lee, J. E., Li, C., Lim, L. S., Ludwig, T. E., Ma, Y., Maltby, E., Mateizel, I., Mayshar, Y., Mileikovsky, M., Minger, S. L., Miyazaki, T., Moon, S. Y., Moore, H., Mummery, C., Nagy, A., Nakatsuji, N., Narwani, K., Oh, S. K. W., Oh, S. K., Olson, C., Otonkoski, T., Pan, F., Park, I. H., Pells, S., Pera, M. F., Pereira, L. V., Qi, O., Raj, G. S., Reubinoff, B., Robins, A., Robson, P., Rossant, J., Salekdeh, G. H., Schulz, T. C., Sermon, K., Mohamed, J. S., Shen, H., Sherrer, E., Sidhu, K., Sivarajah, S., Skottman, H., Spits, C., Stacey, G. N., Strehl, R., Strelchenko, N., Suemori, H., Sun, B., Suuronen, R., Takahashi, K., Tuuri, T., Venu, P., Verlinsky, Y., Oostwaard, D. W. V., Weisenberger, D. J., Wu, Y., Yamanaka, S., Young, L. & Zhou, Q., Dec 2011, In : Nature Biotechnology. 29, 12, p. 1132-1144 13 p.

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

Synthesis of depsipeptides from L-amino acids and lactones

Cao, H., Feng, Y., Wang, H., Zhang, L., Khan, M. & Guo, J., Dec 2011, In : Frontiers of Chemical Science and Engineering. 5, 4, p. 409-415 7 p.

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

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.

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

The effect of organic loading rate and retention time on hydrogen production from a methanogenic CSTR

Pakarinen, O., Kaparaju, P. & Rintala, J., Oct 2011, In : *Bioresource Technology*. 102, 19, p. 8952-8957 6 p.

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

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.

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

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, p. 275610.

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

Hybrid nanoparticle design based on cationized gelatin and the polyanions dextran sulfate and chondroitin sulfate for ocular gene therapy

Zorzi, G. K., Párraga, J. E., Seijo, B. & Sánchez, A., 7 Jul 2011, In : *MACROMOLECULAR BIOSCIENCE*. 11, 7, p. 905-913 9 p.

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

Osteoconductive properties of poly(96L/4D-lactide)/beta-tricalcium phosphate in long term animal model

Daculsi, G., Goyenvalle, E., Cognet, R., Aguado, E. & Suokas, E. O., Apr 2011, In : *Biomaterials*. 32, 12, p. 3166-3177 12 p.

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

Two-stage anaerobic digestion of tomato, cucumber, common reed and grass silage in leach-bed reactors and upflow anaerobic sludge blanket reactors

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

Chimeric avidin shows stability against harsh chemical conditions-biochemical analysis and 3D structure

Määttä, J. A. E., Eisenberg-Domovich, Y., Nordlund, H. R., Hayouka, R., Kulomaa, M. S., Livnah, O. & Hytönen, V. P., Mar 2011, In : *Biotechnology and Bioengineering*. 108, 3, p. 481-490 10 p.

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

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

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