

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

On the biomaterials for nanostructured ocular therapeutics

Controlling the motion of multiple objects on a Chladni plate

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

Programmable responsive hydrogels inspired by classical conditioning algorithm

Photostable orange-red fluorescent unsymmetrical diketopyrrolopyrrole-BF<sub>2</sub> hybrids

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

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

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

How large are nonadiabatic effects in atomic and diatomic systems?

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

New perspectives on proton pumping in cellular respiration

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

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

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

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

Density functional theory study of transition metals doped B<sub>80</sub> fullerene

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

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

A supramolecular approach to photoresponsive thermo/solvoplastic block copolymer elastomers

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

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

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

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

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

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

Evaluation of dry electrodes in canine heart rate monitoring

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

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

Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the TiO<sub>2</sub>-Phthalocyanine Interface

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

Microwave assisted laser-induced breakdown spectroscopy at ambient conditions

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

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

Behavior of 4-hydroxynonenal in phospholipid membranes

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

Anomalous Auger-electron spectra of metallic calcium

Optimization of HVOF Cr<sub>3</sub>C<sub>2</sub>-NiCr coating for increased fatigue performance

High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a KCl-K<sub>2</sub>SO<sub>4</sub> salt mixture

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

Photomechanical Energy Transfer to Photopassive Polymers through Hydrogen and Halogen Bonds

Submolecular Plasticization Induced by Photons in Azobenzene Materials

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

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

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

Supramolecular control of liquid crystals by doping with halogen-bonding dyes

Supramolecular design principles for efficient photoresponsive polymer-azobenzene complexes

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

Melting of copper clusters

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

Ultrasound-assisted extraction in the determination of arsenic, cadmium, copper, lead, and silver in contaminated soil samples by inductively coupled plasma atomic emission spectrometry

Control of matrix interferences by the multiple linear regression model in the determination of arsenic, antimony and tin in lead pellets by inductively coupled plasma atomic emission spectrometry

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

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

Machine learning  
How it can help nanocomputing

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

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

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

Embedded cluster models for reactivity of the hydrated electron

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

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

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

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

The C-I<sup>-</sup>⋯O-N<sup>+</sup> Halogen Bonds with Tetraiodoethylene and Aromatic N-Oxides

Moiré superlattices and 2D electronic properties of graphite/MoS<sub>2</sub> heterostructures

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

Vilsmeier formylation of 2-carboxyindoles and preparation of O-benzylhydroxyureas on solid phase

Solid-phase bromination and Suzuki coupling of 2-carboxyindoles

Preparation of 5-substituted 2-carboxyindoles on solid support

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

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

Membrane Binding of Recoverin  
From Mechanistic Understanding to Biological Functionality

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

A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances

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

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

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

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

Nanoparticle deposition on packaging materials by the liquid flame spray

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

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

Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group

Selenate removal in biofilm systems

Effect of nitrate and sulfate on selenium removal efficiency, biofilm structure and microbial community

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

Fusionsense

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

Energetic origin of proton affinity to the air/water interface

Bringing a Molecular Plus One

Synergistic Binding Creates Guest-Mediated Three-Component Complexes

HPLC-SEC

a new approach to characterise complex wastewater effluents

Electropolymerized polyazulene as active material in flexible supercapacitors

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

Effect of polyolefin molecular structure on product properties in extrusion coating

Networking of ionic liquid modified CNTs in SSBR

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

Inkjet-printed dual microfluidic-based sensor integrated system

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

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

Photoswitchable hydrogel surface topographies by polymerisation-induced diffusion

Stimuli-responsive photonic polymer coatings

Responsive Polymer Photonics

Excited-state polarizability in crystalline sexithiophene

Charge-transfer and vibronic effects

Designing of Elastomer Nanocomposites

From Theory to Application

Mechanisms of acceleration and retardation of water dynamics by ions

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

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

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

Synthesis of fluorescent naphthoquinolizines via intramolecular houben-hoesch reaction

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

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

Rate constant and thermochemistry for  $K + O_2 + N_2 = KO_2 + N_2$

Effect of melting state on the thermal shock resistance and thermal conductivity of APS  $ZrO_2$ -7.5wt.%  $Y_2O_3$  coatings

Photochemistry of dithiophosphate  $Ni(S_2P(i-Bu)_2)_2$  complex in  $CCl_4$ . Transient species and TD-DFT calculations

London Hybrid Exposure Model  
Improving Human Exposure Estimates to  $NO_2$  and  $PM_{2.5}$  in an Urban Setting

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

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

Benchmarking DFT methods with small basis sets for the calculation of halogen-bond strengths

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

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

Low-dimensional formamidinium lead perovskite architectures via controllable solvent intercalation

Spectral object recognition in hyperspectral holography with complex-domain denoising

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

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

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

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

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

Nematicons in azobenzene liquid crystals

Tri-functionality of Fe<sub>3</sub>O<sub>4</sub>-embedded carbon microparticles in microalgae harvesting

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

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

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

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

Properties of HVOF-sprayed Stellite-6 coatings

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

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

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

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

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

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

Pyrene based conjugated materials  
Synthesis, characterization and electroluminescent properties

Machine learning plastic deformation of crystals

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

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

Controlled Orientations of Neighboring Tetracene Units by Mixed Self-Assembled Monolayers on Gold Nanoclusters for High-Yield and Long-Lived Triplet Excited States through Singlet Fission

Optical frequency comb photoacoustic spectroscopy

Optical Frequency Comb Photoacoustic Spectroscopy

Halogen-bonded photoresponsive materials

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

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

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

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

Convenient extraction method for quantification of thin zinc patina layers

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

Spin filtering in silicene by edges and chemically or electrically induced interfaces

High-Q resonance train in a plasmonic metasurface

Phase diagram of argon clusters

Melting and evaporation of argon clusters

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

Collective excitations and viscosity in liquid Bi

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

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

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

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

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

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

Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers

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

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

Multiresonant High-Q Plasmonic Metasurfaces

Molecular mechanisms of ion-specific effects on proteins

UPS and DFT investigation of the electronic structure of gas-phase trimesic acid

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

Robust statistical approaches for RSS-based floor detection in indoor localization

Neutralized chimeric avidin binding at a reference biosensor surface

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

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

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

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

Computational studies for the interpretation of gas response of SnO<sub>2</sub>(110) surface

Surface relaxation of the (110) face of rutile SnO<sub>2</sub>

Computational approaches to the chemical sensitivity of semiconducting tin dioxide

Surface relaxation of the (1010) face of wurtzite CdS

Si<sub>10</sub> and photoabsorption spectra of mid-sized silicon clusters

A cluster approach for the SnO<sub>2</sub> (110) face

Rate equation simulation of the height of Schottky barriers at the surface of oxidic semiconductors

Electronic and structural properties of Si<sub>10</sub> cluster

A finite cluster approach to the electron-hole pair damping of the adsorbate vibration  
CO adsorbed on Cu(100)

Potential energy curves for diatomic molecules calculated with numerical basis functions

A Finite Cluster Approach to the Electron-Hole Pair Damping of the Adsorbate Vibration  
CO Adsorbed on Cu(100)

Direct measurement of the kinetic energy shift between the molecular and atomic M4.5N4.5N4.5 Auger spectra of iodine

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

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

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

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

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

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

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

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

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

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

Recent twists in photoactuation and photoalignment control

Azopolymer-based micro- and nanopatterning for photonic applications

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

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

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

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

Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing

Behavior of the DPH fluorescence probe in membranes perturbed by drugs

Reversible biofunctionalization of surfaces with a switchable mutant of avidin

Nanocluster Aerosol Emissions of a 3D Printer

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

Vegetable fillers for electric stimuli responsive elastomers

Modeling photoionization of aqueous DNA and its components

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

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

Transforming anion instability into stability

Contrasting photoionization of three protonation forms of the phosphate ion upon moving into water

Ionization of purine tautomers in nucleobases, nucleosides, and nucleotides

From the gas phase to the aqueous environment

Peptide salt bridge stability

From gas phase via microhydration to bulk water simulations

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

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

Exhaust emissions of non-road mobile machine

Real-world and laboratory studies with diesel and HVO fuels

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

3D micro-nano structured hybrid scaffolds

An investigation into the role of nanofiber coating on viability, proliferation and differentiation of seeded mesenchymal stem cells

Nematicon-enhanced spontaneous symmetry breaking

Interactions of molecular ions with model phospholipid membranes

Nonlinear transmittance and optical power limiting in magnesium ferrite nanoparticles

effects of laser pulsewidth and particle size

Beaming random lasers with soliton control

Catalytic effect of Ca and K on CO<sub>2</sub> gasification of spruce wood char

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

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

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

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

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

Reversal of the Hofmeister series  
Specific ion effects on peptides

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

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

Modification of Surface States of Hematite-Based Photoanodes by Submonolayer of TiO<sub>2</sub> for Enhanced Solar Water Splitting

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

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

Batch dark fermentative hydrogen production from grass silage  
The effect of inoculum, pH, temperature and VS ratio

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

PIP2 and Talin Join Forces to Activate Integrin

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

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

Tail-Oxidized Cholesterol Enhances Membrane Permeability for Small Solutes

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

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

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

Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt

Upconversion from fluorophosphate glasses prepared with NaYF<sub>4</sub>:Er<sup>3+</sup>, Yb<sup>3+</sup> nanocrystals

Nucleation and growth behavior of Er<sup>3+</sup> doped oxyfluorophosphate glasses

Toward Rigorous Materials Production

New Approach Methodologies Have Extensive Potential to Improve Current Safety Assessment Practices

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

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

Dynamics of a True Moving Bed separation process

Linear model identification and advanced process control

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

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Organic and Printed Electronics

Fundamentals and Applications

A compact olfactometer for IMS measurements and testing human perception

$\pi$ -Expanded  $\alpha,\beta$ -unsaturated ketones

Synthesis, optical properties, and two-photon-induced polymerization

Machine learning analysis of extreme events in optical fibre modulation instability

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

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

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

Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles

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

Detergent impurity effect on recycled HDPE

Properties after repetitive processing

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

Photodiagnostic et chirurgie guidés par la fluorescence

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

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

Ballistic and numerical simulation of impacting goods on conveyor belt rubber

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

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

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

Morphological and structural changes in laser CVD of silicon  
comparison of theoretical temperature calculations with experimental results

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

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

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

A comparison of five optical surface topography measurement methods

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

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

A facile route to synthesis of S-doped  $\text{TiO}_2$  nanoparticles for photocatalytic activity

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

The electrooxidation-induced structural changes of gold di-superatomic molecules  
 $\text{Au}_{23}$  vs.  $\text{Au}_{25}$

Erosion wear performance of WC-10Co4Cr and  $\text{Cr}_3\text{C}_2$ -25NiCr coatings sprayed with high-velocity thermal spray processes

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

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

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

Chasing charge localization and chemical reactivity following photoionization in liquid water

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

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

Taste compound – Nanocellulose interaction assessment by fluorescence indicator displacement assay

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

Molecular dynamics simulations of the interactions of kinin peptides with an anionic POPG bilayer

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

Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids

Multiphoton Excitation of CsPbBr<sub>3</sub> Perovskite Quantum Dots (PQDs)  
How Many Electrons Can One PQD Donate to Multiple Molecular Acceptors?

Metal chalcogenide quantum dots  
Biotechnological synthesis and applications

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

Effects of thinning and heating for TiO<sub>2</sub>/AlInP junctions

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

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

Azobenzene photomechanics  
Prospects and potential applications

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

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

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

DFT simulations and microkinetic modelling of 1-pentyne hydrogenation on Cu<sub>20</sub> model catalysts

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

Growth behavior and magnetic properties of spherical uranium oxide nanoclusters

Density functional theory study of FePd<sub>n</sub> (n = 2-14) clusters and interactions with small molecules

Search for global minimum geometries of medium sized Cd<sub>n</sub>Te<sub>n</sub> clusters (n = 15, 16, 20, 24 and 28)

Elemental and mixed actinide dioxides  
An ab initio study

Site-specific polarizabilities as predictors of favorable adsorption sites on Nan clusters

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

Spontaneous formation of three-dimensionally ordered Bi-rich nanostructures within GaAs<sub>1-x</sub>Bi<sub>x</sub>/GaAs quantum wells

Key drivers of cloud response to surface-active organics

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

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

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

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

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

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

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

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

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

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

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

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

Numerical simulation of temperature distributions in layered structures during laser processing

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

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

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

Calculation of the molecular ordering parameters of (±)-3-butyn-2-ol dissolved in an organic solution of poly(γ-benzyl-L-glutamate)

Start-up and Operation of Laboratory-Scale Thermophilic Upflow Anaerobic Sludge Blanket Reactors Treating Vegetable Processing Wastewaters  
Julkaisun otsikon käännös: : Start-up and Operation of Laboratory-Scale Thermophilic Upflow Anaerobic Sludge Blanket Reactors Treating Vegetable Processing Wastewaters

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

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

Time-resolved fluorescence methods (IUPAC technical report)

Alginate microgels created by selective coalescence between core drops paired with an ultrathin shell

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

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

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

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

Location of dispersing agent in rubber nanocomposites during mixing process

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

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

Lipid-assisted protein transport

A diffusion-reaction model supported by kinetic experiments and molecular dynamics simulations

High-resolution analysis of the  $\nu_3$  band of radiocarbon methane  $^{14}\text{CH}_4$

Zinc coordination spheres in protein structures

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

Bioaerosols and Hospital Infections

Statistical modeling of water vapor transmission rates for extrusion-coated papers

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

Improving the effect of nanoscale barrier coating on BOPP film properties

Influence of substrate contamination, web handling and pretreatments

Nanoscale barrier coating on BOPP packaging film by ALD

The effects of corona and flame treatment

Part 2. PE-HD and PP coated papers

Novel equipment to simulate hot air heat sealability of packaging materials

Novel bio-based materials for active and intelligent packaging

Nanocellulose and Polylactic Acid Based Multilayer Coatings for Barrier Applications

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

Design principles for non-reciprocal photomechanical actuation

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

Effect of Phosphatidic Acid on Biomembrane

Experimental and Molecular Dynamics Simulations Study

Spectral and kinetic characteristics of indotricarbocyanine complexation with albumin

Energy degradation in photoexcited complexes of indocarbocyanine with albumin

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

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

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

A Pentacene-based Nanotube Displaying Enriched Electrochemical and Photochemical Activities

Cholesterol oxidation products and their biological importance

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

Both zundel and eigen isomers contribute to the IR spectrum of the gas-phase H<sub>9</sub>O<sub>4</sub><sup>+</sup> cluster

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

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

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

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

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

Architectures and codecs for real-time light field streaming

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

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

Light-fuelled transport of large dendrimers and proteins

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

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

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

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

Accurate description of calcium solvation in concentrated aqueous solutions

Mutational spectra of *Salmonella typhimurium* revertants induced by chlorohydroxyfuranones, byproducts of chlorine disinfection of drinking water

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

Ultrafast Photochemistry of the  $[\text{Cr}(\text{NCS})_6]^{3-}$  Complex in Dimethyl Sulfoxide and Dimethylformamide upon Excitation into Ligand-Field Electronic State

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

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

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

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

Irradiation promoted exchange reaction with disulfide substituents

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

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

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

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

Sorption and retention of ethylene glycol monoethyl ether (EGME) on silicas

Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of  $\text{H}_2\text{O}_2$  Using Low-Intensity Direct Current

Optical non-contact pH measurement in cell culture with sterilizable, modular parts

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

Concentration-dependent photophysical switching in mixed self-assembled monolayers of pentacene and perylene-3,4,9,10-tetracarboxylic diimide on gold nanoclusters

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

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

Experimental and theoretical study of the spin-spin coupling tensors in methylsilane

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

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

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

Recovery characteristics of different tube materials in relation to combustion products

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

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

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

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

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

Graphene-intercalated  $\text{Fe}_2\text{O}_3/\text{TiO}_2$  heterojunctions for efficient photoelectrolysis of water

Effect of nitro groups and alkyl chain length on the negative ion tandem mass spectra of alkyl 3-hydroxy-5-(4'-nitrophenoxy) and alkyl 3-hydroxy-5-(2', 4'-dinitrophenoxy) benzoates

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

How conformational flexibility stabilizes the hyperthermophilic elongation factor G-domain

Formation of corrosion products on zinc in wet supercritical and subcritical  $\text{CO}_2$   
In-situ spectroscopic study

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

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

Molekuly a ionty v pohybu  
Počítačové simulace biochemických a biofyzikálních procesů

ILC1 drive intestinal epithelial and matrix remodelling

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

Compounding and characterization of recycled multilayer plastic films

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

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

Two cations, two mechanisms

Interactions of sodium and calcium with zwitterionic lipid membranes

Rotational Diffusion of Membrane Proteins in Crowded Membranes

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

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

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

Understanding selenium biogeochemistry in engineered ecosystems

Transformation and analytical methods

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

Magnetic routing of light-induced waveguides

Reaction between Peroxy and Alkoxy Radicals Can Form Stable Adducts

Feed-hopper level estimation and control in cone crushers

Mass balance control of crushing circuits

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

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

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

Strain rate change tests with the Split Hopkinson Bar method

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

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

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

Inequivalence of single  $\text{CH}_a$  and  $\text{CH}_b$  methylene bonds in the interior of a diunsaturated lipid bilayer from a molecular dynamics simulation

Effects of two double bonds on the hydrocarbon interior of a phospholipid bilayer

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

Protein conformation as a regulator of cell-matrix adhesion

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

Appropriate pricing policy needed worldwide for improving water services infrastructure

Controllable Electronic Structures and Photoinduced Processes of Bay-Linked Perylenediimide Dimers and a Ferrocene-Linked Triad

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

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

A concise synthesis of carbasugars isolated from *Streptomyces lincolnensis*

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

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

Design aspects of all atomic layer deposited  $\text{TiO}_2\text{-Fe}_2\text{O}_3$  scaffold-absorber photoanodes for water splitting

Epitaxial phases of high Bi content GaSbBi alloys

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

Hexaphyrin as a Potential Theranostic Dye for Photothermal Therapy and  $^{19}\text{F}$  Magnetic Resonance Imaging

Urea and guanidinium induced denaturation of a Trp-cage miniprotein

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

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

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

ClothFace

A Batteryless RFID-Based Textile Platform for Handwriting Recognition

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

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

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

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

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

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

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

Kinetics and modelling of thiosulphate biotransformations by haloalkaliphilic Thioalkalivibrio versutus

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

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

The Devil Is in the Details

What Do We Really Track in Single-Particle Tracking Experiments of Diffusion in Biological Membranes?

Membrane cholesterol access into a G-protein-coupled receptor

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

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

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

Thermal desorption of molecular oxygen from SnO<sub>2</sub> (110) surface  
Insights from first-principles calculations

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

Silver sulfide nanoclusters and the superatom model

Superatom Model for Ag-S Nanocluster with Delocalized Electrons

Geometric Structure and Chemical Ordering of Large AuCu Clusters  
A Computational Study

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

Energy-dependent diffusion in a soft periodic Lorentz gas

An electro-optically tunable Bragg reflector based on liquid crystals

Towards universal enrichment nanocoating for IR-ATR waveguides

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

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

The Hosoya entropy of graphs revisited

Pyrolytic behavior of lignocellulosic-based polysaccharides

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

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

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

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

Buckling Behavior of Cold-Formed Studs with Thermal Perforations

Experimental moment resistance of rectangular hollow section T joints

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

La thérapie photodynamique  
État de l'art et perspectives

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