

3D micro-nano structured hybrid scaffolds

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

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

A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances

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

Accurate description of aqueous carbonate ions

An effective polarization model verified by neutron scattering

Accurate description of calcium solvation in concentrated aqueous solutions

A Ceramide-Regulated Element in the Late Endosomal Protein LAPTM4B Controls Amino Acid Transporter Interaction

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

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

A compact olfactometer for IMS measurements and testing human perception

A comparison of five optical surface topography measurement methods

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

A concise synthesis of carbasugars isolated from *Streptomyces lincolnensis*

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

Additive manufacturing of monolithic supercapacitors with biopolymer separator

Adsorption of furfural from torrefaction condensate using torrefied biomass

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

Affine-response model of molecular solvation of ions

Accurate predictions of asymmetric charging free energies

A finite cluster approach to the electron-hole pair damping of the adsorbate vibration

CO adsorbed on Cu(100)

A Finite Cluster Approach to the Electron-Hole Pair Damping of the Adsorbate Vibration

CO Adsorbed on Cu(100)

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

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

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

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

A microscopic view of the mechanisms of active transport across the cellular membrane

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

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

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

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

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

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

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

An electro-optically tunable Bragg reflector based on liquid crystals

Anomalous Auger-electron spectra of metallic calcium

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

A Pentacene-based Nanotube Displaying Enriched Electrochemical and Photochemical Activities

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

Appropriate pricing policy needed worldwide for improving water services infrastructure

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

Architectures and codecs for real-time light field streaming

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

A supramolecular approach to photoresponsive thermo/solvoplastic block copolymer elastomers

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

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

Azobenzene photomechanics  
Prospects and potential applications

Azopolymer-based micro- and nanopatterning for photonic applications

Ballistic and numerical simulation of impacting goods on conveyor belt rubber

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

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

Beaming random lasers with soliton control

Behavior of 4-hydroxynonenal in phospholipid membranes

Behavior of the DPH fluorescence probe in membranes perturbed by drugs

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

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

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

Bi-directional cell-pericellular matrix interactions direct stem cell fate

Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of  $H_2O_2$  Using Low-Intensity Direct Current

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

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

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

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

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

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

Bringing a Molecular Plus One  
Synergistic Binding Creates Guest-Mediated Three-Component Complexes

Buckling Behavior of Cold-Formed Studs with Thermal Perforations

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

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

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

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

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

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

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

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

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

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

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

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

Chasing charge localization and chemical reactivity following photoionization in liquid water

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

Chemolithotrophic denitrification in biofilm reactors

Chlorine induced high-temperature corrosion mechanisms in HVOF and HVOF sprayed Cr<sub>3</sub>C<sub>2</sub>-based hardmetal coatings

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

Cholesterol oxidation products and their biological importance

ClothFace

A Batteryless RFID-Based Textile Platform for Handwriting Recognition

Collective excitations and viscosity in liquid Bi

Comparison and impact of different fiber debond techniques on fiber reinforced flexible composites

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

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

Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method

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

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

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

Compounding and characterization of recycled multilayer plastic films

Computational approaches to the chemical sensitivity of semiconducting tin dioxide

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

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

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

Conductivity control via minimally invasive anti-Frenkel defects in a functional oxide

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

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

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

Controlled Growth of Supported ZnO Inverted Nanopyramids with Downward Pointing Tips

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

Controlling the motion of multiple objects on a Chladni plate

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

Convenient extraction method for quantification of thin zinc patina layers

Coordination networks incorporating halogen-bond donor sites and azobenzene groups

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

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

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

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

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

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

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

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

Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt

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

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

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

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

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

Design aspects of all atomic layer deposited TiO<sub>2</sub>-Fe<sub>2</sub>O<sub>3</sub> scaffold-absorber photoanodes for water splitting

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

Design principles for non-reciprocal photomechanical actuation

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

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

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

Detergent impurity effect on recycled HDPE  
Properties after repetitive processing

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Effect of Phosphatidic Acid on Biomembrane  
Experimental and Molecular Dynamics Simulations Study

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

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

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

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

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

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

Effect of tungsten and selenium on  $C_1$  gas bioconversion by an enriched anaerobic sludge and microbial community analysis

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

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

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

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

Effects of thinning and heating for  $TiO_2/AlInP$  junctions

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

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



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

Efficient production of NV colour centres in nanodiamonds using high-energy electron irradiation

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

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

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

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

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

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

Electropolymerized polyazulene as active material in flexible supercapacitors

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

Elemental and mixed actinide dioxides  
An ab initio study

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

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

Embedded cluster models for reactivity of the hydrated electron

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

Energetic origin of proton affinity to the air/water interface

Energy degradation in photoexcited complexes of indocarbocyanine with albumin

Energy-dependent diffusion in a soft periodic Lorentz gas

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

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

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

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

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

Epitaxial phases of high Bi content GaSbBi alloys

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

Ergodicity breaking and particle spreading in noisy heterogeneous diffusion processes

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

Evaluation of dry electrodes in canine heart rate monitoring

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

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

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

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

Experimental study on axially loaded square hollow section T-joints under fire conditions

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

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

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

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

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

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

Fast Switching of Bright Whiteness in Channeled Hydrogel Networks

FCC-hh

The Hadron Collider: Future Circular Collider Conceptual Design Report Volume 3

Fe<sub>2</sub>O<sub>3</sub>-TiO<sub>2</sub> nanosystems by a hybrid PE-CVD/ALD approach  
controllable synthesis, growth mechanism, and photocatalytic properties

Feed-hopper level estimation and control in cone crushers

Fire-safe and environmentally friendly nanocomposites based on layered double hydroxides and ethylene propylene diene elastomer

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

Formation of corrosion products on zinc in wet supercritical and subcritical CO<sub>2</sub>  
In-situ spectroscopic study

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

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

Fusionsense

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

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

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

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

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

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

Grain orientation dependent Nb-Ti microalloying mediated surface segregation on ferritic stainless steel

Graphene-intercalated Fe<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> heterojunctions for efficient photoelectrolysis of water

Growth behavior and magnetic properties of spherical uranium oxide nanoclusters

Guanidinium Pairing Facilitates Membrane Translocation

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

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

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

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

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

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

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

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

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

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

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

High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a  $\text{KCl-K}_2\text{SO}_4$  salt mixture

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

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

How conformational flexibility stabilizes the hyperthermophilic elongation factor G-domain

How large are nonadiabatic effects in atomic and diatomic systems?

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

HPLC-SEC  
a new approach to characterise complex wastewater effluents

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

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

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

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

ILC1 drive intestinal epithelial and matrix remodelling

Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group

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

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

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

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

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

Improved Stability of Atomic Layer Deposited Amorphous  $\text{TiO}_2$  Photoelectrode Coatings by Thermally Induced Oxygen Defects

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

Improving the high temperature abrasion resistance of thermally sprayed  $\text{Cr}_3\text{C}_2$ -NiCr coatings by WC addition

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

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

Influence of heat treatment on the abrasive wear resistance of a  $\text{Cr}_3\text{C}_2$ -NiCr coating deposited by an ethene-fuelled HVOF spray process

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

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

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

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

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

Interactions of molecular ions with model phospholipid membranes

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

Inverted critical adsorption of polyelectrolytes in confinement

Investigation of the adducts formed by reaction of butenedioic acids with adenosine

Ionization of purine tautomers in nucleobases, nucleosides, and nucleotides  
From the gas phase to the aqueous environment

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

Irradiation promoted exchange reaction with disulfide substituents

Key drivers of cloud response to surface-active organics

Kinetics and modelling of thiosulphate biotransformations by haloalkaliphilic *Thioalkalivibrio versutus*

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

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

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

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

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

La thérapie photodynamique

État de l'art et perspectives

Translated title of the contribution: : The photodynamic therapy: State of the art and perspectives

Layered Double Hydroxides (LDH)

A multifunctional versatile system for nanocomposites

Less Is More

Enhancement of Second-Harmonic Generation from Metasurfaces by Reduced Nanoparticle Density

Light-fuelled transport of large dendrimers and proteins

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

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

Lipid-assisted protein transport

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

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

Location of dispersing agent in rubber nanocomposites during mixing process

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

London Hybrid Exposure Model

Improving Human Exposure Estimates to  $\text{NO}_2$  and  $\text{PM}_{2.5}$  in an Urban Setting

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

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

Low-dimensional formamidinium lead perovskite architectures via controllable solvent intercalation

Lubricated icephobic coatings prepared by flame spraying with hybrid feedstock injection

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

Machine learning analysis of extreme events in optical fibre modulation instability

Machine learning plastic deformation of crystals

Magnetic origin of the chemical balance in alloyed Fe-Cr stainless steels

First-principles and Ising model study

Magnetic routing of light-induced waveguides

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

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

Mass balance control of crushing circuits

Measuring optical anisotropy in poly(3,4-ethylene dioxythiophene)

poly(styrene sulfonate) films with added graphene

Measuring synthesis yield in graphene oxide synthesis by modified hummers method

Mechanical, thermal, and burning properties of viscose fabric composites

Influence of epoxy resin modification

Mechanisms of acceleration and retardation of water dynamics by ions

Melting and evaporation of argon clusters

Melting of copper clusters

Membrane Binding of Recoverin  
From Mechanistic Understanding to Biological Functionality

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

Membrane cholesterol access into a G-protein-coupled receptor

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

Metal chalcogenide quantum dots  
Biotechnological synthesis and applications

Methods for simultaneous robot-world-hand–eye calibration  
A comparative study

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

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

Microwave assisted laser-induced breakdown spectroscopy at ambient conditions

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

Modeling photoionization of aqueous DNA and its components

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

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

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

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

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



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

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

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

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

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

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

Molecular mechanisms of ion-specific effects on proteins

Molecular-Scale Ligand Effects in Small Gold-Thiolate Nanoclusters

Molekuly a ionty v pohybu

Počítačové simulace biochemických a biofyzikálních procesů

Translated title of the contribution: : Molecules and ions in motion: Computer simulations of biochemical and biophysical processes

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

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

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

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

Multiresonant High-Q Plasmonic Metasurfaces

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

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

Nanocluster Aerosol Emissions of a 3D Printer

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

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

Nematicon-enhanced spontaneous symmetry breaking

Nematicons in azobenzene liquid crystals

Networking of ionic liquid modified CNTs in SSBR

Neutralized chimeric avidin binding at a reference biosensor surface

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

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

Nonlinear transmittance and optical power limiting in magnesium ferrite nanoparticles effects of laser pulsewidth and particle size

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

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

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

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

Numerical simulation of temperature distributions in layered structures during laser processing

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

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

On entropy-based molecular descriptors  
Statistical analysis of real and synthetic chemical structures

On the alignment of ZnO nanowires by Langmuir – Blodgett technique for sensing application

On the biomaterials for nanostructured ocular therapeutics

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

Optical frequency comb photoacoustic spectroscopy

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

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

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

Optical vortex generation in nematic liquid crystal light valves

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

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

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

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

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

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

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

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

Oxygen and water vapor transmission rates of starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper

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

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

PEGylated liposomes as carriers of hydrophobic porphyrins

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

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

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

Phase diagram of argon clusters

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

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

Photochemistry of dithiophosphate  $\text{Ni}(\text{S}_2\text{P}(\text{i-Bu})_2)_2$  complex in  $\text{CCl}_4$ . Transient species and TD-DFT calculations

Photodiagnostic et chirurgie guidés par la fluorescence

Translated title of the contribution: : Fluorescence diagnosis and fluorescence-guided surgery

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

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

Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids

Photomechanical Energy Transfer to Photopassive Polymers through Hydrogen and Halogen Bonds

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

Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems

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

Photoresponsive ionic liquid crystals assembled

Via halogen bond: En route towards light-controllable ion transporters

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

Photostable orange-red fluorescent unsymmetrical diketopyrrolopyrrole- $\text{BF}_2$  hybrids

Photoswitchable hydrogel surface topographies by polymerisation-induced diffusion

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

Physical Characteristics of Particle Emissions from a Medium Speed Ship Engine Fueled with Natural Gas and Low-Sulfur Liquid Fuels

PIP2 and Talin Join Forces to Activate Integrin

Polarization resolved photoluminescence in  $\text{GaAs}_{1-x}\text{Bi}_x/\text{GaAs}$  quantum wells

Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers

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

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

Porous polybutylene succinate films enabling adhesion of human embryonic stem cell-derived retinal pigment epithelial cells (hESC-RPE)

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

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

Possible strategy to use differential mobility spectrometry in real time applications

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

Potential energy curves for diatomic molecules calculated with numerical basis functions

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

Preparation of 5-substituted 2-carboxyindoles on solid support

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

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

Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles

Programmable responsive hydrogels inspired by classical conditioning algorithm

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

Properties of HVOF-sprayed Stellite-6 coatings

Protein conformation as a regulator of cell-matrix adhesion

Pyrene based conjugated materials  
Synthesis, characterization and electroluminescent properties

Pyrolytic behavior of lignocellulosic-based polysaccharides

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

Quantifying non-ergodic dynamics of force-free granular gases

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

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

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

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

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

Reaction between Peroxy and Alkoxy Radicals Can Form Stable Adducts

Recent twists in photoactuation and photoalignment control

Recovery characteristics of different tube materials in relation to combustion products

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

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

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

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

Responsive Polymer Photonics

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

Reversal of the Hofmeister series  
Specific ion effects on peptides

Reversible biofunctionalization of surfaces with a switchable mutant of avidin

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

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

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

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

Rotational Diffusion of Membrane Proteins in Crowded Membranes

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

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

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

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

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

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

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

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

Semiclassical hybrid approach to condensed phase molecular dynamics  
Application to the I<sub>2</sub>Kr<sub>17</sub> cluster

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

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

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

Silver sulfide nanoclusters and the superatom model

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

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

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

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

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

Solid-phase bromination and Suzuki coupling of 2-carboxyindoles

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

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

Spectral and kinetic characteristics of indotricarbocyanine complexation with albumin

Spectral object recognition in hyperspectral holography with complex-domain denoising

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

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

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

Spontaneous formation of three-dimensionally ordered Bi-rich nanostructures within  $\text{GaAs}_{1-x}\text{Bi}_x/\text{GaAs}$  quantum wells

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

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

Starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper and their effects of phase interactions

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

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

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

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

Strain rate change tests with the Split Hopkinson Bar method

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

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

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

Structural information content of networks  
Graph entropy based on local vertex functionals

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

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



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

Submolecular Plasticization Induced by Photons in Azobenzene Materials

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

Superatom Model for Ag-S Nanocluster with Delocalized Electrons

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

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

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

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

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

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

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

Surface relaxation of the (1010) face of wurtzite CdS

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

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

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

Syndecan-4 tunes cell mechanics by activating the kindlin-integrin-RhoA pathway

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

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

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

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

