

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

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

Zinc coordination spheres in protein structures

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

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

Waves in hyperbolic and double negative metamaterials including rogues and solitons

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

Water-Responsive and Mechanically Adaptive Natural Rubber Composites by in Situ Modification of Mineral Filler Structures

Volatile fatty acid adsorption on anion exchange resins  
kinetics and selective recovery of acetic acid

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

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

Vegetable fillers for electric stimuli responsive elastomers

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

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

Utilization of Grignard reagents in solid-phase synthesis  
A review of the literature

Urea and guanidinium induced denaturation of a Trp-cage miniprotein

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

Upconversion from fluorophosphate glasses prepared with  $\text{NaYF}_4:\text{Er}^{3+}, \text{Yb}^{3+}$  nanocrystals

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

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

Understanding selenium biogeochemistry in engineered ecosystems  
Transformation and analytical methods

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

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

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

Tuning PDMS brush chemistry by UV-O3 exposure for PS-b-PDMS microphase separation and directed self-assembly

Tuning of nonlinear absorption in highly luminescent CdSe based quantum dots with core-shell and core/multi-shell architectures

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

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

Tribology of HVOF- and HVOF-sprayed WC-10Co4Cr hardmetal coatings  
A comparative assessment

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

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

Towards universal enrichment nanocoating for IR-ATR waveguides

Toward Rigorous Materials Production  
New Approach Methodologies Have Extensive Potential to Improve Current Safety Assessment Practices

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

Time-resolved fluorescence methods (IUPAC technical report)

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

The structural information content of chemical networks

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

The role of symmetry in the aesthetics of residential building façades using cognitive science methods

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

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

Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing

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

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

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

The Hosoya entropy of graphs revisited

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

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

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

The effects of corona and flame treatment  
Part 2. PE-HD and PP coated papers

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

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

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

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

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

The Devil Is in the Details  
What Do We Really Track in Single-Particle Tracking Experiments of Diffusion in Biological Membranes?

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

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

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

Taste compound – Nanocellulose interaction assessment by fluorescence indicator displacement assay

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

Tail-Oxidized Cholesterol Enhances Membrane Permeability for Small Solutes

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

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

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

Synthesis of fluorescent naphthoquinolizines via intramolecular houben-hoesch reaction

Synthesis of chlorinated 5-hydroxy 4-methyl-2(5H)-furanones and mucochloric acid

Synthesis of 6,12-disubstituted methanodibenzo[b,f][1,5]dioxocins  
Pyrrolidine catalyzed self-condensation of 2'-Hydroxyacetophenones

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

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

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

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

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

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

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

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

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

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

Surface relaxation of the (1010) face of wurtzite CdS

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

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

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

Supramolecular design principles for efficient photoresponsive polymer-azobenzene complexes

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

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

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

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

Superatom Model for Ag-S Nanocluster with Delocalized Electrons

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

Submolecular Plasticization Induced by Photons in Azobenzene Materials

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

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

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

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

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

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

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

Strain rate change tests with the Split Hopkinson Bar method

Stimuli-responsive photonic polymer coatings

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

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

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

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

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

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

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

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

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

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

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

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

Spectral object recognition in hyperspectral holography with complex-domain denoising

Spectral and kinetic characteristics of indotricarbocyanine complexation with albumin

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

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

Solid-phase bromination and Suzuki coupling of 2-carboxyindoles

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

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

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

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

Site-specific analysis of dipole polarizabilities of heterogeneous systems  
Iron-doped  $\text{Si}_n$  ( $n = 1-14$ ) clusters

Silver sulfide nanoclusters and the superatom model

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

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

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

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

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

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

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

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

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

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

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

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

Rotational Diffusion of Membrane Proteins in Crowded Membranes

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

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

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

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

Reversible biofunctionalization of surfaces with a switchable mutant of avidin

Reversal of the Hofmeister series  
Specific ion effects on peptides

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

Responsive Polymer Photonics

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

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

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

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

Recovery characteristics of different tube materials in relation to combustion products

Recent twists in photoactuation and photoalignment control

Recent advances in the preparation of heterocycles on solid support  
A review of the literature

Reaction between Peroxy and Alkoxy Radicals Can Form Stable Adducts

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

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

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

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

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

Quantifying structural complexity of graphs  
Information measures in mathematical chemistry

Quantifying non-ergodic dynamics of force-free granular gases

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

Pyrolytic behavior of lignocellulosic-based polysaccharides



Pyrene based conjugated materials  
Synthesis, characterization and electroluminescent properties

Protein conformation as a regulator of cell-matrix adhesion

Properties of HVOF-sprayed Stellite-6 coatings

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

Programmable responsive hydrogels inspired by classical conditioning algorithm

Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles

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

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

Preparation of 5-substituted 2-carboxyindoles on solid support

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

Potential energy curves for diatomic molecules calculated with numerical basis functions

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

Possible strategy to use differential mobility spectrometry in real time applications

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

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

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

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

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

Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers

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

PIP2 and Talin Join Forces to Activate Integrin

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

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

Photoswitchable hydrogel surface topographies by polymerisation-induced diffusion

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

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

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

Photophysical properties of Sn (IV)tetraphenylporphyrin-pyrene dyad with a β-vinyl linker

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

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

Photomechanical Energy Transfer to Photopassive Polymers through Hydrogen and Halogen Bonds

Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids

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

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

Photodiagnostic et chirurgie guidés par la fluorescence  
Translated title of the contribution: : Fluorescence diagnosis and fluorescence-guided surgery

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

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

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

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

Phase diagram of argon clusters

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

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

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

PEGylated liposomes as carriers of hydrophobic porphyrins

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

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

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

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

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

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

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

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

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

Organic and Printed Electronics  
Fundamentals and Applications

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

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

Optical vortex generation in nematic liquid crystal light valves

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

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

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

Optical Frequency Comb Photoacoustic Spectroscopy

Optical frequency comb photoacoustic spectroscopy

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

On the biomaterials for nanostructured ocular therapeutics

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

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

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

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

Numerical simulation of temperature distributions in layered structures during laser processing

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

Novel equipment to simulate hot air heat sealability of packaging materials

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

Novel bio-based materials for active and intelligent packaging

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

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

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

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

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

New perspectives on proton pumping in cellular respiration

Neutralized chimeric avidin binding at a reference biosensor surface

Networking of ionic liquid modified CNTs in SSBR

Nematicons in azobenzene liquid crystals

Nematicon-enhanced spontaneous symmetry breaking

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

Nanostructured Ionomeric Elastomers

Nanoscale barrier coating on BOPP packaging film by ALD

Nanoparticle deposition on packaging materials by the liquid flame spray

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

Nanocluster Aerosol Emissions of a 3D Printer

Nanocellulose and Polylactic Acid Based Multilayer Coatings for Barrier Applications

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

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

Multiscale Simulations of Biological Membranes  
The Challenge To Understand Biological Phenomena in a Living Substance

Multiresonant High-Q Plasmonic Metasurfaces

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

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

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

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

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

Molecular-Scale Ligand Effects in Small Gold-Thiolate Nanoclusters

Molecular mechanisms of ion-specific effects on proteins

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

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

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

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

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

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

Molecular Composition and Volatility of Nucleated Particles from  $\alpha$ -Pinene Oxidation between  $-50\text{ }^{\circ}\text{C}$  and  $+25\text{ }^{\circ}\text{C}$

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

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

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

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

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

Modeling photoionization of aqueous DNA and its components

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

Microwave assisted laser-induced breakdown spectroscopy at ambient conditions

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

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

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

Metal chalcogenide quantum dots  
Biotechnological synthesis and applications

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

Membrane cholesterol access into a G-protein-coupled receptor

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

Membrane Binding of Recoverin  
From Mechanistic Understanding to Biological Functionality

Melting of copper clusters

Melting and evaporation of argon clusters

Mechanisms of acceleration and retardation of water dynamics by ions

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

Measuring synthesis yield in graphene oxide synthesis by modified hummers method

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

Mass balance control of crushing circuits

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

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

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

Magnetic routing of light-induced waveguides

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

Machine learning plastic deformation of crystals

Machine learning analysis of extreme events in optical fibre modulation instability

Machine learning  
How it can help nanocomputing

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

Lubricated icephobic coatings prepared by flame spraying with hybrid feedstock injection

Low-dimensional formamidinium lead perovskite architectures via controllable solvent intercalation

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

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

London Hybrid Exposure Model

Improving Human Exposure Estimates to NO<sub>2</sub> and PM<sub>2.5</sub> in an Urban Setting

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

Location of dispersing agent in rubber nanocomposites during mixing process

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

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

Lipid-assisted protein transport

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

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

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

Light-fuelled transport of large dendrimers and proteins

Less Is More

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

Layered Double Hydroxides (LDH)

A multifunctional versatile system for nanocomposites

La thérapie photodynamique

État de l'art et perspectives

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

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

Kinetics of polymer looping with macromolecular crowding

Effects of volume fraction and crowder size

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

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



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

Kinetics and modelling of thiosulphate biotransformations by haloalkaliphilic Thioalkalivibrio versutus

Key drivers of cloud response to surface-active organics

Irradiation promoted exchange reaction with disulfide substituents

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

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

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

Inverted critical adsorption of polyelectrolytes in confinement

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

Interactions of molecular ions with model phospholipid membranes

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

Inkjet-printed dual microfluidic-based sensor integrated system

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group

ILC1 drive intestinal epithelial and matrix remodelling

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

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

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

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

HPLC-SEC  
a new approach to characterise complex wastewater effluents

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

How large are nonadiabatic effects in atomic and diatomic systems?

How conformational flexibility stabilizes the hyperthermophilic elongation factor G-domain

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

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

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

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

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

High-resolution analysis of the  $\nu_3$  band of radiocarbon methane <sup>14</sup>CH<sub>4</sub>

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

High-Q resonance train in a plasmonic metasurface

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

Highly Oxygenated Organic Molecules (HOM) from Gas-Phase Autoxidation Involving Peroxy Radicals  
A Key Contributor to Atmospheric Aerosol

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

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

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

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

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

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

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

Halogen-bonded photoresponsive materials

Guanidinium Pairing Facilitates Membrane Translocation

Growth behavior and magnetic properties of spherical uranium oxide nanoclusters

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Feed-hopper level estimation and control in cone crushers

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

FCC-hh  
The Hadron Collider: Future Circular Collider Conceptual Design Report Volume 3

Fast Switching of Bright Whiteness in Channeled Hydrogel Networks

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

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

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

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

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

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

Experimental moment resistance of rectangular hollow section T joints

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

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

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

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

Evaluation of dry electrodes in canine heart rate monitoring

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

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

Ergodicity breaking and particle spreading in noisy heterogeneous diffusion processes

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

Epitaxial phases of high Bi content GaSbBi alloys

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

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

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

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

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

Energy-dependent diffusion in a soft periodic Lorentz gas

Energy degradation in photoexcited complexes of indocarbocyanine with albumin

Energetic origin of proton affinity to the air/water interface

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

Embedded cluster models for reactivity of the hydrated electron

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

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

Elemental and mixed actinide dioxides  
An ab initio study

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

Electropolymerized polyazulene as active material in flexible supercapacitors

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Effect of tungsten and selenium on C<sub>1</sub> gas bioconversion by an enriched anaerobic sludge and microbial community analysis

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

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

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

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

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

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

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

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

Effect of polyolefin molecular structure on product properties in extrusion coating

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

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

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

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

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

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

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

Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the  $TiO_2$ -Phthalocyanine Interface

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

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

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

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

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

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

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

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

DFT simulations and microkinetic modelling of 1-pentyne hydrogenation on  $Cu_{20}$  model catalysts

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

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

Detergent impurity effect on recycled HDPE  
Properties after repetitive processing

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



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

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

Design principles for non-reciprocal photomechanical actuation

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

Designing of Elastomer Nanocomposites  
From Theory to Application

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

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

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

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

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

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

Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt

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

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

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

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

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

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

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

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

Coordination networks incorporating halogen-bond donor sites and azobenzene groups

Convenient extraction method for quantification of thin zinc patina layers

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