

## Previous Topics

9657-9658 Topics: 2023-2024

Efficient Copper-Catalyzed Multicomponent Synthesis of N-Acyl Amidines via Acyl Nitrene

The Potential of Copper Mediated Nucleophilic Radiofluorination in Labeling Complex Medicinally Relevant Molecules

Enhanced annihilation electrochemiluminescence by nanofluidic confinement

Ligand Enabled Ethylene Dimerization and Oligomerization with Nickel Complexes Bearing <sup>R</sup>PBP Pincer Ligands

Identification and properties of novel gold nanoclusters for potential electrocatalytic applications

Imaging of Active Coagulation Pathway Proteases using Activity Based Probes

A Microporous 2D Cobalt-based MOF with Pyridyl Sites and Open Metal Sites for Selective Adsorption of CO<sub>2</sub>

Comparative proteomic analysis of host responses to Ascochyta blight disease in susceptible and resistant cultivated pea plants

Exploring Diffusion and Cellular Uptake: Charged Gold Nanoparticles in an in Vitro Breast Cancer Model

Enhancing MALDI Mass Spectrometry Imaging of Carboxyl and Aldehyde Metabolites in Brain Tissue via On-Tissue Chemical Derivatization

Long-term exposure of zebrafish to bisphenol F: Adverse effects on parental reproduction and offspring neurodevelopment

Pressure-Tuned Ultrapure Multicolor Emission of 2D Lead Halide Perovskites

Leaching Behaviour of Pharmaceuticals in Soil Environments

Improved XPS Analysis by Visual Inspection of the Survey Spectrum

Study of the air-formed oxide layer at the copper surface and its impact on the copper corrosion in an aggressive chloride medium

Titanium dental implants: biological aging and overcoming the problem using UV treatment and wet storage

Utilizing a Lewis Acidic Secondary Coordination Sphere Towards the Synthesis and Reactivity of a Copper Hydride

Multi-modal rhenium(I) tricarbonyl aqua complexes as anti-cancer agents

P<sub>2</sub>N<sub>2</sub> Ligands for Organic Transformations

Carbon Dots for Anti-Counterfeiting Applications

Selective Deposition of N-Heterocyclic Carbene Monolayers on Designated Au Microelectrodes within an Electrode Array

Nitric oxide: A promising strategy for healthcare-related infection and biofilm eradication

Light Work: Low Molecular Weight and Metal-Free Ring-Opening Metathesis Polymers via a Photo-Redox Mediated Method

Microdroplet-Accelerated Chemical Reactions and Their Applications in Proteomics

The Disappearance of End-group Effects for Growing Oligoynes Chains

Quantum Dots: Complex Core-Shell

Two-dimensional metal-organic frameworks based photocatalysts for efficient reduction of CO<sub>2</sub> to CO

Optimizing Enzymatic Synthesis Outcomes of Cyclodextrins Through Varied Template Selections

Innovations in Moisture-Responsive Smart Materials: From Water Harvesting to Portable Electronics

Title: Enhancing the performance of Energy Storage Devices by utilizing Carbon-based Nanomaterials in Electrodes

Local Structure of Mixed-ionic Hybrid Lead Halide Perovskites Materials

Chemical Passivation Strategies Toward Stable and High-Performance Perovskite Solar Cells

Determining the coffee quality by NIR and MID-Infrared spectroscopy combined with chemometric techniques

9657-9658 Topics: 2022-2023

Ni(II) Mediated C(sp<sup>3</sup>)-H Activation Using Tertiary Ureas as Model Substrates

Tunable degradation in polyesters with stimuli-responsive behavior

Taming Phosphorous Mononitride

2D Supramolecular Peptide Design

Metal oxides heterostructures: a new way to improve the properties of semiconductors

Green" Synthesis of Transition Metal Oxide Nanoparticles

Investigating Protein Stability in the Gas Phase Using Collision Induced Unfolding

Donor Acceptor Cyclopropane Activation and Reactivity

Homochiral Serine Octamer Clusters Formed During Electrospray Ionization

Oxidation of Primary Amines to Nitriles Using a Ruthenium-Based Catalyst

Indirubins as Red-Light Photoswitches - Control Through Supramolecular Interactions

Ni-based catalyst design for the dry reforming of methane (DRM) process

The Future is Looking Emptier: Development of Porous Liquids

Cross-Linking Aliphatic Polymers with *Bis*-Diazirines

Targeting Cancer Cells and their organelles with Specific DNA and Protein Sequences  
Preparation of Highly Reactive Lithium Metal Dendrites for the Synthesis of Organolithium Reagents  
Ryugu: How Isotope Analyses of Asteroids Provide Insight into the History of our Solar System  
Covalent Organic Framework (COF) polymeric membranes: exploring the green synthesis pathways  
Nature inspired: Structural colours for the development of highly scalable materials  
Experimental and Theoretical Studies on High-Pressure Phases of a Promising Hydrogen-Rich Material: Ammonia Borane  
Concentration - and Solvation - Induced Reversible Structural Transformation and Assembly of Polynuclear Gold (I) Sulfido Complexes  
Discovery of the antiviral, AL-611: an NS5B Polymerase Inhibitor for the Treatment of Chronic Hepatitis C  
Nanoparticles as newfound matrices for MALDI Mass Spectrometry for the detection of small molecules  
Triptycene-Based Microporous Polymers: Synthesis and Applications in Gas Storage and Wastewater Purification  
Understanding Cultural Heritage Materials with the Use of Novel Analytical Methodologies: How Chemistry can be used to study History, Archeology and Paleontology  
Chemical synthesis of functional and large proteins using automated fast-flow synthesis: protocol development and validation with proteins of interest  
Interfacial engineering strategy for high-performance solid-state lithium metal batteries

### **Previous Topics**

9657-9658 Topics: 2021-2022

Heterocyclic Structures from Tandem Conia-Ene Reactions Recovery of Rare Earth Elements from Wastewater Effluents  
Tuning the Properties of Gold Nanoclusters using mixed N-Heterocyclic Carbene-Thiolate Ligands Surface Modification in Silver (I) Thiolate Nanoclusters  
ZnGa<sub>2</sub>O<sub>4</sub> with Long-Lasting Luminescence: Spectroscopic Analysis and Mechanism of Temperature-dependent Luminescence  
The Stereochemistry of the Addition of Alcohols to Disilenes  
Highly efficient sky-blue electroluminescence from ligand – activated copper iodide clusters: Overcoming the limitations of cluster light – emitting diodes  
The framework structure and gas sorption of s-block metal MOFs based on H<sub>2</sub>SDB linker Cyclic Peptides: Enhanced Cell Permeability and Resistance to Proteolytic Degradation Fabricating CuO-Cu<sub>2</sub>O Coatings Mediated by Anodization-Assisted Electrodeposition  
Investigating Antimicrobial Properties of Electrochemically Deposited Ag-Doped Calcium Phosphate Coatings  
Evaluating triple quadrupole mass spectrometry for multi-residue analysis of pesticides in food  
Tuning the physical properties of Transition Metal dichalcogenides 2D flakes  
Recent Developments in the Enantioselective Synthesis of Biaryl Atropisomers via Asymmetric Suzuki-Miyaura Cross-Coupling Reaction  
Water-Processable, Eco-Friendly Bioplastics  
Wastewater-based Epidemiology: Application to SARS-CoV-2 and Drug Detection Isolation of a Ru(IV) side-on peroxo intermediate in the water oxidation reaction  
Therapeutic small molecules for COVID-19 treatment: RdRp and SARS CoV Mpro as antiviral targets Catalytic approach to upgrade biomass-derived ethanol into long-chain alcohol biofuel  
Application of Anti-reflective and Superhydrophobic Coatings for PVs  
Using Nanostructured Material to Enhance the Structural Properties of Metals  
Au-based Electrocatalysts for Efficient Nitrogen Reduction Reaction under Ambient Condition Enhanced Photocatalytic Degradation of Harmful Aqueous Contaminants by Modification of TiO<sub>2</sub> Poly(dopamine): from adhesive coatings to nanoscale assembly  
New Contact Lenses for Drug Delivery

9657-9658 Topics: 2020-2021

Dendritic hydrogels: Materials for the encapsulation and delivery of cells and drugs  
Optical, Electronic and Thermochromic Properties of Three Coordinate Borepinium and Boraflluorenum Heterocycles  
Synthesis of highly luminescent N-heterocyclic carbene stabilized Au Furan-Based Synthetic Bio-Based Polymers Protect Against UV Radiation Mass Spectrometry-Based Approaches to Biomarker Discovery Advances in Low-Cost Detection of Toxic Arsenic in the Environment Protein Corona of Nanoparticles  
Greener Synthesis of Organic Compounds Using Electrosynthesis Methods Selective Hydrogenation of Acetylene to ethylene: “Active Site Isolation” Matters Complexes for Catalytic Oxidation of Alcohols

Capture and Characterization of Single Extracellular Vesicles

Hierarchical ZnO microstructure by Hydrothermal Method and Its Photocatalytic activity Hydrophosphination: A new, controlled route to post polymerisation modification of phosphinoborane polymers

Multi-modal rhenium(I) tricarbonyl aqua complexes as anti-cancer agents Structure and Properties Tuning of Sodium Rhodizonate by High Pressure

Solid-Vapor Interface Engineered Covalent Organic Framework Membranes for Molecular Separation Affinity

Selection-Mass Spectrometry Screening of Peptide Libraries

Modern Theoretical Perspectives on Electronegativity

Cycloaddition: Access to Complex Scaffolds via Donor-Acceptor Cyclopropanes

On Halogen Bonding: History, Recent Advances and the Redefinition of the Status Quo Phase-change materials (PCMs) for data storage technologies

Cooperative Dehydrogenative Catalysis in Aniline Synthesis

NH<sub>3</sub> formation from N<sub>2</sub> and H<sub>2</sub> mediated by molecular tri-iron complexes

Developments in Highly Biocompatible Photosensitized Nanomaterials for Photodynamic Therapy Nanobio-engineered biosensors for COVID-19 diagnosis

Using Bimetallic Complexes as Catalysts for Organic Synthesis

9657-9658 Topics: 2019-2020

Dendritic hydrogels: Materials for the encapsulation and delivery of cells and drugs

Optical, Electronic and Thermochromic Properties of Three Coordinate Borepinium and Borafluorenium Heterocycles

Synthesis of highly luminescent N-heterocyclic carbene stabilized Au cluster Furan-Based Synthetic Bio-Based Polymers Protect Against UV Radiation Mass Spectrometry-Based Approaches to Biomarker Discovery

Advances in Low-Cost Detection of Toxic Arsenic in the Environment The Protein Corona of Nanoparticles

Greener Synthesis of Organic Compounds Using Electrosynthesis Methods Selective Hydrogenation of Acetylene to ethylene: "Active Site Isolation" Matters Nickel PR<sub>2</sub>NR'<sub>2</sub> Complexes for Catalytic Oxidation of Alcohols

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Cycloaddition: Access to Complex Scaffolds via Donor-Acceptor Cyclopropanes Expanding the Definition

Phase-change materials (PCMs) for data storage technologies Cooperative Dehydrogenative Catalysis in Aniline Synthesis

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Developments in Highly Biocompatible Photosensitized Nanomaterials for Photodynamic Therapy Nanobio-engineered biosensors for COVID-19 diagnosis

Using Bimetallic Complexes as Catalysts for Organic Synthesis

9657-9658 Topics: 2018-2019

1,2,4-triazoline-3,5-dione (TAD)-based click and transclick reactions: The new era of ultrafast and reversible click chemistry for polymer systems

H<sub>2</sub> and CO<sub>2</sub> Activation by an Iminodisilene

Ionization energies from *ab initio* ground-state wave functions

Roles of Transition Metal Surface Dopants in Enhancing the Oxygen Reduction Reaction Performance of Bimetallic Nanoparticles

Modern Methods of Screening for Bioactive Compounds in Complex Mixtures Peptide nucleic acid: Advanced tools for biomedical applications

Design of hybrid hydrogels from cationic arginine-based poly(ester amide)s

The Importance & Versatility of Cycloaddition Chemistry: A Look at Donor-Acceptor Cyclopropanes & Cyclobutanes Post-Synthetic Modifications of Indium Phosphide Quantum Dots: Strategies for Enhancing Luminescence and Tunability

Scavenging oxygen at room temperature using electrochemically reduced TiO<sub>2</sub> nanotubes

Molecular Dynamics Simulation Methods for Studying the Rotational and Catalytic Behavior of the F<sub>1</sub> ATP Synthase Molecular Copper Chalcogenides: Building Copper (I) Sulfide Molecules Using *N*-Heterocyclic Carbenes Oxidative

Protein Modifications in Aging Characterized by Mass Spectrometry

Recent Advances in the Cycloaddition of 1,4-Dipoles: An Atom Economical Construction of Biologically Relevant Frameworks

The Viability of Aluminum Ion Batteries for Safe Commercial Uses

Getting the Short End of the Stick – The Effects of Truncation on Lipid Bilayers Anionic redox activity in Li-ion batteries – fundamentals and challenges

Search for Past Life on Mars: Hints from Detection of Reduced Organic Carbon Compounds and Carbonate Minerals in Martian Meteorites

Chemical Space: The Final Frontier – Expanding the chemical diversity of large macrocycle libraries The application of atomically thin 2D materials in CO<sub>2</sub> electroreduction

CO<sub>2</sub> Reduction with Main Group Reagents Motion of Light-powered Micro/Nanobots

Frontal Ring-Opening Metathesis Polymerization of Dicyclopentadiene: An Efficient and Versatile Method for the Synthesis of a Thermoset Polymer

Nano-porous Polymer-based Materials for Highly Efficient Passive Daytime Radiative Cooling Bioinspired Microstructures for Fog Water Harvest

Advances in 2D Semiconductor Materials for Field Effect Transistors

9657-9658 Topics: 2017-2018

Geopolymers as Encapsulants for Cs and Sr Nuclear Waste Designing molecular beacons for improved nucleic acid bioanalysis Polynuclear N-Heterocyclic Carbene Complexes of Gold Vibrational Spectroscopy of Exosomes

Glycodendrimersomes, a Novel Cellular Mimic with Displayed Surface Carbohydrates for Binding to Lectins Low-

Coordinate Phosphorus Compounds: Adding Tools to the Synthetic Chemists' Toolbox

Red to near-IR BODIPY fluorophores and their role in dendritic single-molecule fluorescent probes Saxitoxin in Action: Development of novel biological tools for the investigation of voltage gated sodium channels

X-750 alloy oxide formation in boiling water reactor conditions: exploring the effects of iron content and surface preparation

Reusable Evanescent wave DNA biosensor for rapid detection of Mercury ions in aqueous solution with high sensitivity and selectivity

Hydrogen Bonding in Photoswitchable Molecules Plasmonic Nanoparticles as Optical Biosensors

The design and synthesis of a 18F-labeled saxitoxin derivative for in vivo PET imaging of voltage-gated sodium channels

Analytical Issues involved in the Legalization of Cannabinoids

Improving the Detection Sensitivity in Paper-based Microfluidics for Point-of-Care Diagnostics Keep 'em Separated: Methods of deconvoluting NMR spectra of complex mixtures

Polymers in Water Treatment: Applications and Function

Recent Advances in Materials Science: What Does It Mean to Be "Biomimetic"?

The Use of DNA Nano-Architecture Platforms for Stabilization and Delivery of Biologically Active Therapeutics The Importance of Late Stage Functionalization

Liquid Crystal Elastomers and their Modern Applications

Universal molecular scissor, CRISPR-CAS9, and its chemical modification Mass Spectrometry - A Weapon in the War on Drugs

Single-Molecule Reactions Simultaneously Initiated and Filmed by Transmission Electron Microscopy Drug Delivery for Selective Targeting: A Couple Creative Approaches

Electroorganic Synthesis: C-H Functionalization by Electrochemical Methods Iron Oxide Nanoparticles as an Adsorbent in Water and Wastewater Treatments

Protein Conformations in the Gas Phase Probed by Mass Spectrometry and Molecular Dynamics Simulations

Sustained drug release formulations for joint conditions

Fabrication of Silicon Films Using Electrodeposition Methods

The effect of formyl group on the spectral properties of chlorophylls

9657-9658 Topics: 2016-2017

The X Files: The Application of Nuclear Forensics to Characterize Nuclear Materials of Unknown Origin Small Flasks for Big Chemistry: Application of Self-Assembled Hosts in Synthesis

A lithium-oxygen battery based on lithium superoxide Model exchange-correlation potentials

Stimuli Responsive Poly(phthalaldehyde)s and Their Applications in Tunable Core-Shell Microcapsules for Controlled Release

Inverse vulcanization: a new polymeric technique and its uses in Li-S batteries Cancer Diagnosis and Treatment by Means of Magnetic Nanoparticles Corrosion and Oxide Formation of Nickel-based Alloys

Solvent-Free Synthesis of MOFs and Zeolites

The viability of current solid materials for direct air capture of CO<sub>2</sub> Artificially expanded genetic information system (AEGIS)

Molecular Assembly of the Nanoporous Metal-Organic Framework ZIF-8 Studied by Atomic Force Microscopy Solution to the PEG Dilemma: Efficient Bioconjugation of Large Gold Nanoparticles for Biodiagnostic Applications using Mixed Layers

Ancient DNA – Preserving and Analyzing the Remnants of DNA from Fossilized Organisms Recent Developments of Atom Probe Tomography and Applications

Stapled Peptides: Applications and new Advances

Exploring the Oxygen Reactivity of a NiCl( $\pi$ -allyl)N-Heterocyclic Carbene System Innovative paper::Applications of paper functionalized with hydrochromic dyes Recent progress on the conversion of syngas to lower olefins

Reversible Cycloadditions of Unsaturated Tin Compounds

Incorporation of BODIPY dyes into block copolymers, and their use in visualizing self-assembly

Use of dissolution dynamic nuclear polarization to increase sensitivity in metabolic magnetic resonance imaging

Applications of Hydrogen/Deuterium Exchange-Mass Spectrometry for Studying Intrinsically Disordered Proteins

Radiation-induced Oxidation of Iron Oxides

The Effect of Long-range Interaction Forces on Surface-Surface Reactions

Deadly secrets of 17th and 18th century paintings: Arsenic sulfide pigment degradation and migration

Thermochromic VO<sub>2</sub>-Based Coatings for Smart Windows

Blast Off! Progress of Rocket Propellant and its Impact on Space Exploration

9658Y Topics: 2015-2016

How to recycle waste solvent? Membranes can co it!

Filling the gap: Developing new composite resins for dental materials Catalytic Hydrogenation of CO<sub>2</sub> to Methanol

Recent Advancements of Silicon Nanowires: Bio-interfaced Electronics Continuous Liquid Interface Production:

Pulling 3D Printed Polymers Forward Bodybuilding, Powerlifting and Performance Enhancing Drugs

Tracking of LiFePO<sub>4</sub> Phase Transition Mechanism upon Lithiation and Delithiation Single Molecule Imaging using Atomic Force Microscopy

Coating Methods for Magnesium Alloys

CO oxidation: Transforming A Hazardous Air Pollutant to Non-Toxic CO<sub>2</sub> Recent advances in the development of small molecule based organic solar cells Application of magnetic compounds to wastewater treatment

Recent progress in molecular level studies of mechanochemical processes CO<sub>2</sub>-Switchable Materials for Green Chemical Processes

Harmful Algal blooms -- Toxicity and the need for Rapid detection of microcystins in drinking water Recent advances in tandem catalysis

Criegee Intermediates: Elusive molecules that clean up the atmosphere

Prodrugs Targeting the Central Nervous System (CNS): A Challenge in Drug Development

Restoring the past: is chemical cleaning or laser ablation the answer to bringing ancient art back to life The synthesis, properties and applications of Nanodiamonds

Tackling the burden of obesity and hyperglycemia in type 2 diabetes Chemistry as a Useful Tool for Understanding the Universe

Atomically thin transition metal dicalcogenides as new semiconductor materials

The Use of anti-MicroRNAs (AMOs) and Nanotechnology for Drug Delivery Systems and Therapy Spherical nucleic acid: A multifunctional cancer treatment kit

Applications of Quantum Dots as Forster Resonance Energy Transfer Based Biosensors Anisotropic patchy particles as self assembling building blocks

Valorization of Lignin: Towards the production of valuable chemicals and fuels Advances in wearable electronics using fiber energy storage systems

Can we make our windows smart using Transition Metal Oxides? Flow Chemistry: The future of Synthesis

From Chemotherapeutics to Surgical Extraction: The Role of NPs in Treating Brain Tumors

Recent Developments in Chemical Exchange Saturation Transfer (CEST) Agents for Magnetic Resonance Imaging (MRI) Contrast Enhancement

Carbon Monoxide Reduction: A Trade off between Efficiency and Conditions Hypervalent Iodine Reagent in Atom Transfer Reactions

Applying Archaeochemistry to Shipwrecks: Exploring History's Underwater Treasure Chests The Crystalline Sponge Method: A Revolutionary Change in X-ray Crystallography Methods of Detection for Blood Doping in Professional Athletes

Recovering Uranium from Seawater Using Iron Nanoparticles

9658Y Topics: 2014-2015

Examining the Next Generation of Anti-Inflammatory Agents

Membrane Electrode Assembly: the Challenges and Opportunities That Lie Within Advances in CO<sub>2</sub> Capture

Technologies Using Amine-Based Solid Sorbents

Recent Developments in Single Particle Cryo-Electron Microscopy for Studying Biomolecular Structures

Organocatalyzed Dynamic Kinetic Resolution for Single Enantiomer Synthesis Cellular Factories: The Next Industrial Revolution

Versatile chemistry of cyclodextrins and their multi- functionalities Graphene-Based Anode Materials for Lithium-Ion Batteries

Spiroindolones and Imidazolopiperazines: Potential New Weapons to Defeat Malaria Threose Nucleic Acid (TNA)

Li-S Batteries: Advanced S-Host Materials Recent Advances in Organocatalysis

MALDI Mass Spectrometry Imaging: Enabling Spatially-Resolved Biomarker Discovery Antibiotic Resistance: A

Growing Concern with a Sweet Solution Targeting metal ions as a potential therapeutic for Alzheimer's disease

Challenges and opportunities for mixed-matrix membranes for gas separation

Detection of O-linked protein glycosylation –an important link in Alzheimer's disease Broadly Neutralizing

Antibodies: Towards the Development of HIV Vaccines

Carbon Dioxide: A "Green" Stimulus for Block Copolymer Self-Assembly and Development of Biomimetic Materials

Phasing Out the Fat: Colloids in Food

Medical Applications of Solid-Phase Microextraction (SPME) Catalytic Conversion of Biomass for the Use as

Alternative Fuels DNA Aptamers for Targeted Cancer Therapy

Development of Aptasensors and Their Use in Bisphenol A (BPA) Detection Marijuana: A gateway drug ... to better health

Polymer solar cells- a new approach to harness energy directly from the sun Rotaxane Based Mechanically Interlocked Machines: From Design to Work Actuator Materials in Future Biomedical Applications

9658Y Topics: 2013-2014

Sonochemistry, a versatile tool in chemical operations Visible-Light Photoredox Catalysis in Organic Transformations Studying "invisible" excited states of proteins by solution phase NMR New Synthesis of Frontier Therapeutic Molecules with Applications Chemistry of High-Temperature Superconductivity Photochromic Diarylethenes: Potential Application as Molecular Mechanical Devices Analyzing the Mechanism, Synthesis and Action of Anti-Obesity drugs and their affects on Adiposity Chemistry of Cheating: Performance-Enhancing Drugs in Professional Sports Fragment Based Drug Discovery: How is it changing the drug design process? Chemical Fingerprinting of Historic Works of Art Quintuple bonded complexes: Synthesis and reactivity Chiral *tert* butanesulfinamides: A Versatile Auxillary for Synthesis Stirred not Shaken: Mixing in Droplet Microfluidics Nanocarries as a Method for Drug Delivery of Nitric Oxide Bioorthogonal Reactions: Bringing Chemistry to Life Antimicrobial Textiles Lightweight Biodegradable Implants The Role of Nanoparticles in Drug Delivery What's Love Got to Do with It? The Chemistry of Sex Pheromones Small Melicules Which Rescue the Mutant Cystic Fibrosis Transmembrane Conductance Regulator Archaeological Chemistry - Using Chemistry to Unveil the Secrets of Antiquity Recent Developments in Atom Transfer Radical Polymerization (ATRP) Methods to Discover and Synthesize Macrocyclic Peptides Bind and Shine: Fluorescence Chemosensors for Fluoride Ions Detection Chemistry of Disaster: Recent Advance in Detection and Degradation of Chemical Warfare Agents

9658Y Topics: 2012-2013

Systems Chemistry-Self Replication and a Deeper Understanding of the Origins of Life Molecular Gastronomy: How Chemistry Pushes the Restaurant Industry Forward Stimulated Emission Depletion Fluorescence Microscopy beyond the Diffraction Limit The Development of Materials and Methods for Desalinating Saltwater Directed Self-organization of Inorganic Nanoparticles: Challenge from Science to Engineering Mechanized Silica Nanoparticles: The "Magic bullet" in Theranostic Nanomedicine Photodynamic Therapy; Mechanistic Studies and Photosensitizer Targeting Tinplate Cans for Food Preservation: Corrosion Detection and Natural Corrosion Inhibitor Chemical Chaperones as Alternative Therapeutic Agents Implantable Biofuel Cells H<sub>2</sub> Production under Visible Light: Clean Energy Generation Water Transition Metal Catalyzed Fluorinations: Increasing the Substrate Scope for 18-F Labeling Defect-related Luminescent Mateerials and their Application in Biomedical Fields Biomedical Application of Synthetic Hydrogels: Challenges and Future Perspectives Molecular Machine: Mechanically Interlocked Molecules DNA Origami: The Art and Science of Nucleic Acid Nanostructures Organic Light-Emitting Diodes: The Light of the Future

Light Struck Beer

Development of Synthetic Metalloenzymes Towards Industrial Applications Layered Double Hydroxides (LDHs)

Nanosheets and their Applications Metal-organic Frameworks for Hydrogen Storage

9658Y Topics: 2011-2012

Artificial and Non-Nutritive Sweeteners (NNS): What's in your coffee? The Photochemical Reduction of Carbon Dioxide: Application for Energy Storage Catalytic Antibodies: At the Interface of Chemistry and Biology The Role of Nanomaterials in Increasing Energy Efficiency of Li-air Batteries Repairing Internal Damage - The Chemistry of Self-Healing Materials Molecular Flasks: Self-Assembled Transition-Metal Supramolecular Hosts

C-H Bond Activation, Towards Unactivated Cross-Coupling Reactivity Molybdenum and Iron Complexes for Dinitrogen Reduction to Ammonia Core-Shell Nanoparticles: Fabrication and Application for Chemical Catalysis Synthesis, Dynamics and Applications of Catalytic Motors

Photoswitching with azobenzene compounds for application: Can you see the light? Unravelling the Chemistry behind Two Forms of Non-B DNA: Theory and Application

The Green Solvent, Supercritical Carbon Dioxide and its Application in Liposome Preparation An old dog teaching us new tricks: microRNAs - from detection to potential drug applications Total Syntheses: Stemonal Alkaloids

Aptamers: Principles and Applications in Molecular Recognition Using Nanobiosensors for Food and Water Safety

Organophosphate Nerve Agents: Chemical Methodologies to Decontaminate or Destroy This Chemical Warfare Agent Mending Bones: Synthesis and Applications of Bioceramics and Nanofibers

Shedding Light on Photoprotection: Advances in Sunscreen UV-Filters Storing Energy between Layers: Fabrication and Applications of Graphene Family Nanomaterials There is a lot to a wee dram of whisky; a comprehensive analysis of current analytical techniques used to confirm quality and authenticity

Toward Flexible Memories: Organic Materials for High Density Data Storage Photoluminescent Framework for the Identification of Gunshot Residue Dye Sensitized Solar Cells: The Bright Future of Photovoltaics

Bacterial Magnetosomes and Their Applications