

July 25, 2012
Volume 134, Issue 29
Pages 11829-12320

DITORIAL

Abiological Self-Assembly via Coordination: Formation of 2D Metallacycles and 3D Metallacages with Well-Defined Shapes and Sizes and Their Chemistry

Peter J. Stang

pp 11829-11830

Publication Date (Web): July 25, 2012 (Editorial)

DOI: 10.1021/ja3047206

SPOTLIGHTS

Spotlights on Recent JACS Publications

pp 11831-11832

Publication Date (Web): July 10, 2012 (Spotlights)

DOI: 10.1021/ja306217r

COMMUNICATIONS

Palladium-Catalyzed, Asymmetric Mizoroki–Heck Reaction of Benzylic Electrophiles Using Phosphoramidites as Chiral Ligands

Zhigang Yang and Jianrong (Steve) Zhou

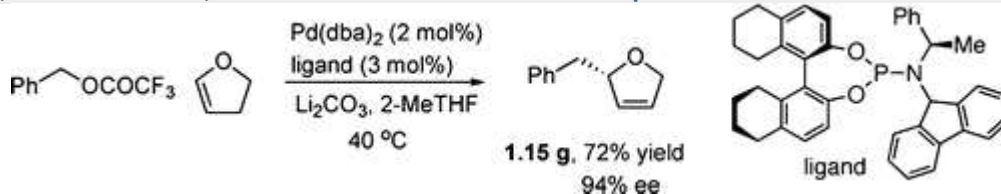
pp 11833-11835

Publication Date (Web): June 29, 2012 (Communication)

DOI: 10.1021/ja304099j

CCSSection:

Benzene, Its Derivatives, and Condensed Benzenoid Compounds



Ultrafast Terahertz Photoconductivity of Bulk Heterojunction Materials Reveals High Carrier Mobility up to Nanosecond Time Scale

Carlito S. Ponseca, Jr., Arkady Yartsev, Ergang Wang, Mats R. Andersson, Dimali Vithanage, and Villy Sundström

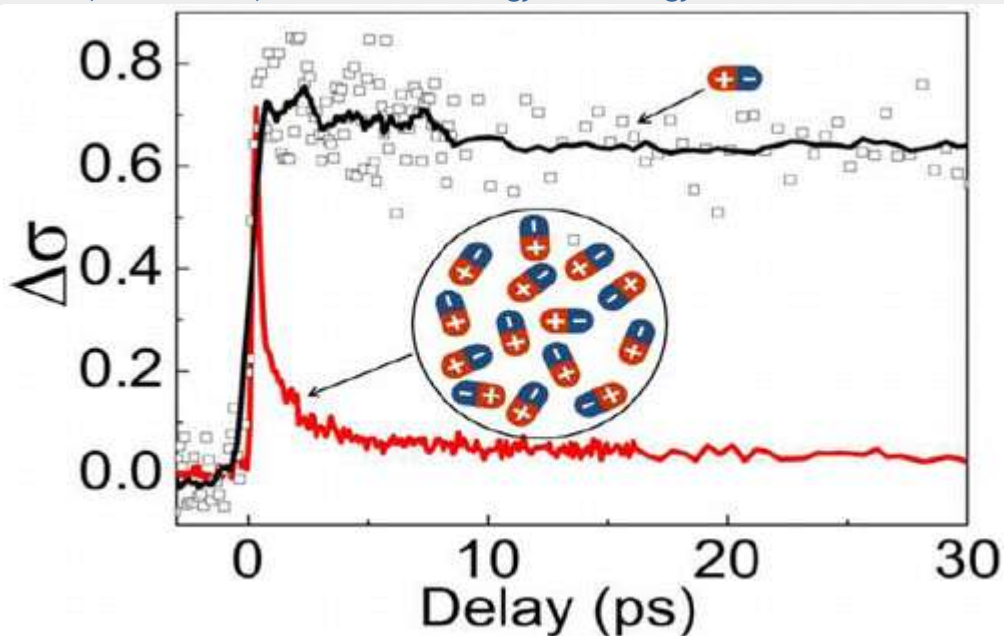
pp 11836-11839

Publication Date (Web): July 2, 2012 (Communication)

DOI: 10.1021/ja301757y

CCS Section:

Electrochemical, Radiational, and Thermal Energy Technology



Structures of *KlenTaq* DNA Polymerase Caught While Incorporating C5-Modified Pyrimidine and C7-Modified 7-Deazapurine Nucleoside Triphosphates

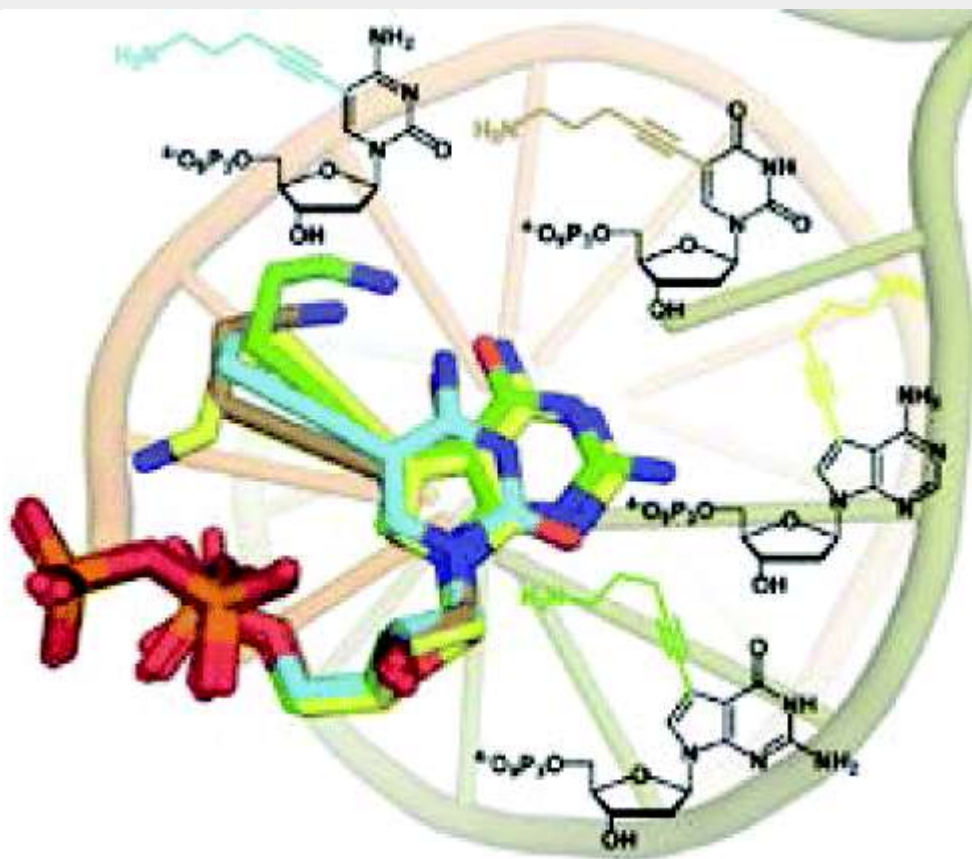
Konrad Bergen, Anna-Lena Steck, Stefan Strütt, Anna Baccaro, Wolfram Welte, Kay Diederichs, and Andreas Marx

pp 11840-11843

Publication Date (Web): April 4, 2012 (Communication)

DOI: 10.1021/ja3017889

CCS Section:
Enzymes



Transfer of Cl Ligands between Adsorbed Iron Tetraphenylporphyrin Molecules

Thiruvancheril G. Gopakumar, Hao Tang, Joseph Morillo, and Richard Berndt

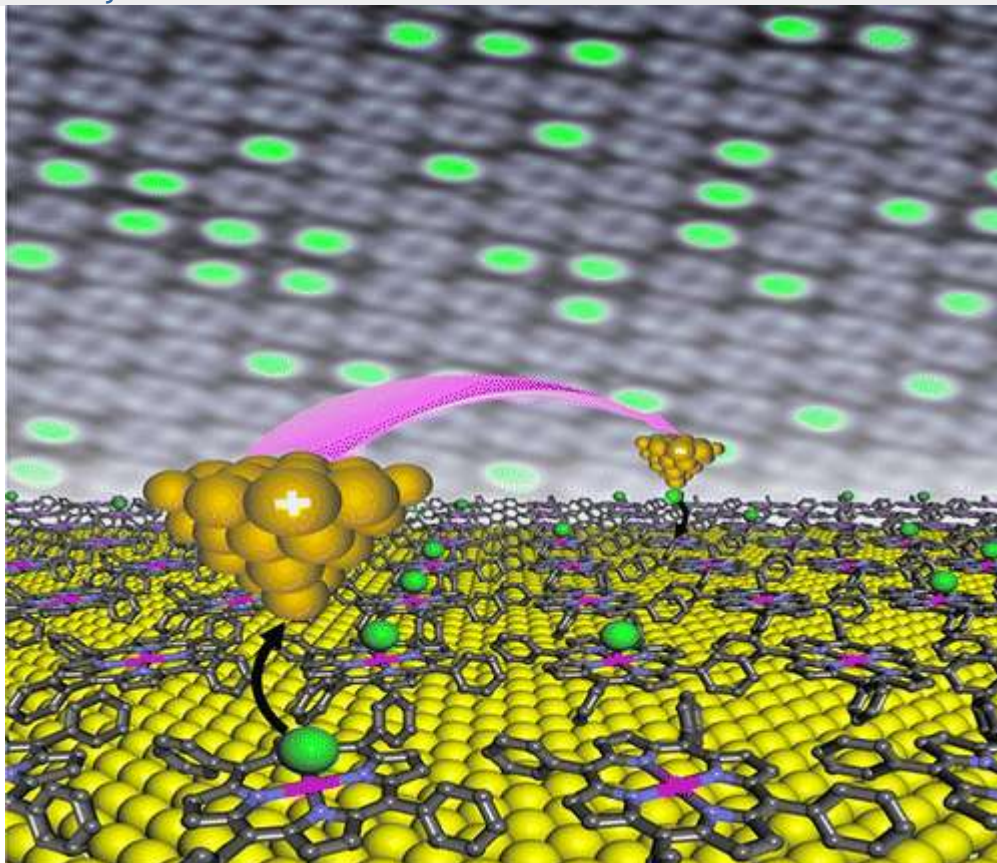
pp 11844-11847

Publication Date (Web): July 2, 2012 (Communication)

DOI: 10.1021/ja302589z

Section:

Surface Chemistry and Colloids



Understanding the Mechanism of Short-Range Electron Transfer Using an Immobilized Cupredoxin

Stefano Monari, Gianantonio Battistuzzi, Carlo A. Bortolotti, Sachiko Yanagisawa, Katsuko Sato, Chan Li, Isabelle Salard, Dorota Kostrz, Marco Borsari, Antonio Ranieri, Christopher Dennison, and Marco Sola

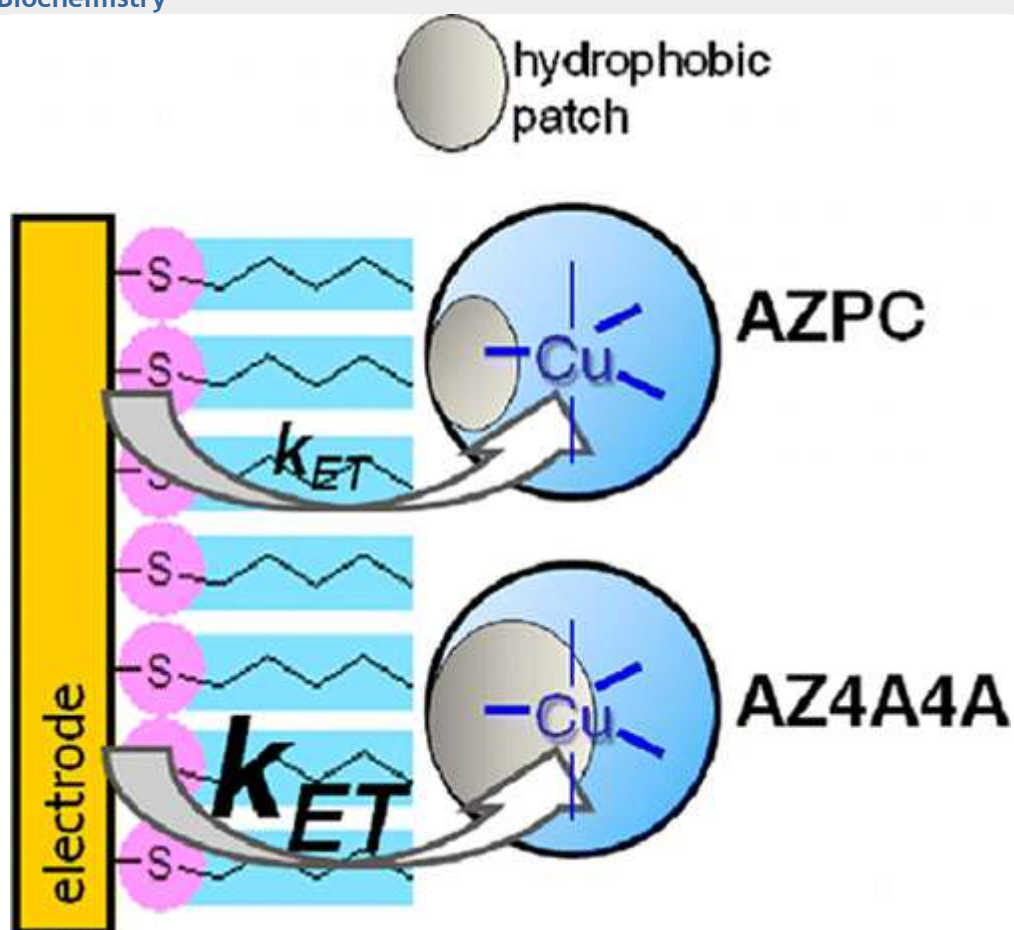
pp 11848-11851

Publication Date (Web): July 12, 2012 (Communication)

DOI: 10.1021/ja303425b

CCS Section:

General Biochemistry



Poly(ionic liquid) Complex with Spontaneous Micro-/Mesoporosity: Template-Free Synthesis and Application as Catalyst Support

Qiang Zhao, Pengfei Zhang, Markus Antonietti, and Jiayin Yuan

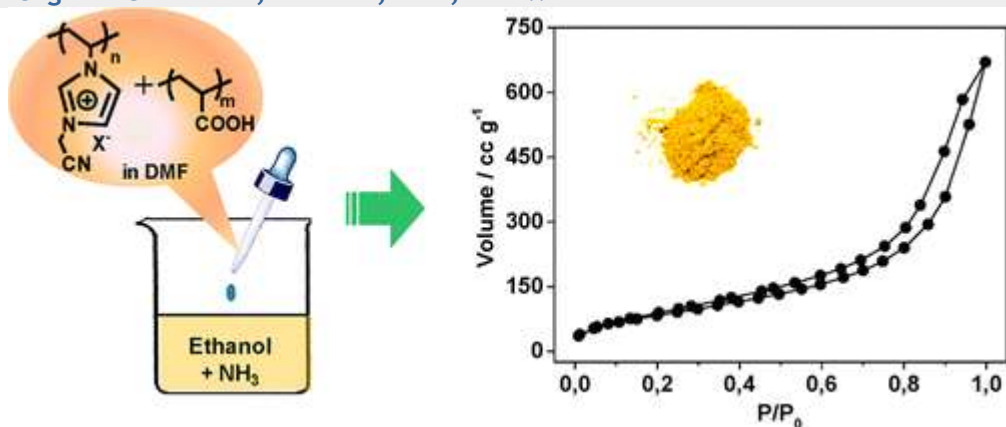
pp 11852-11855

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja303552p

CCS Section:

Industrial Organic Chemicals, Leather, Fats, and Waxes



Long-Lived Charge-Separated States in Ligand-Stabilized Silver Clusters

Matthew Pelton, Yun Tang, Osman M. Bakr, and Francesco Stellacci

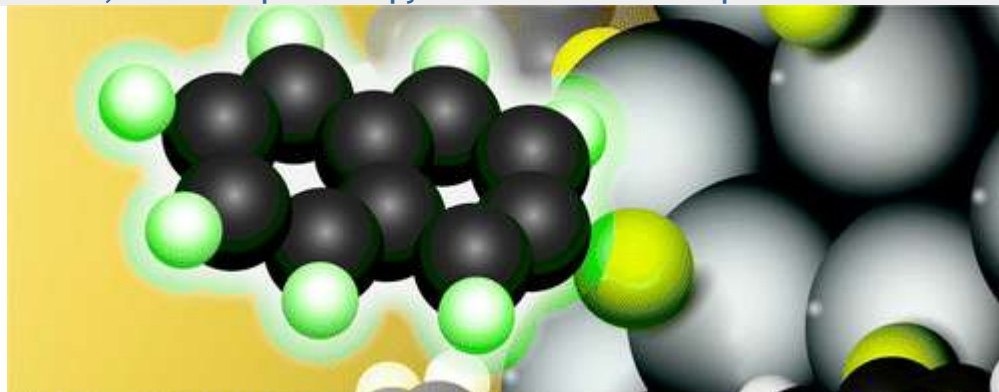
pp 11856-11859

Publication Date (Web): July 9, 2012 (Communication)

DOI: 10.1021/ja303682m

CCS Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties



Photoconversion Bonding Mechanism in Ruthenium Sulfur Dioxide Linkage Photoisomers Revealed by in Situ Diffraction

Sven O. Sylvester, Jacqueline M. Cole, and Paul G. Waddell

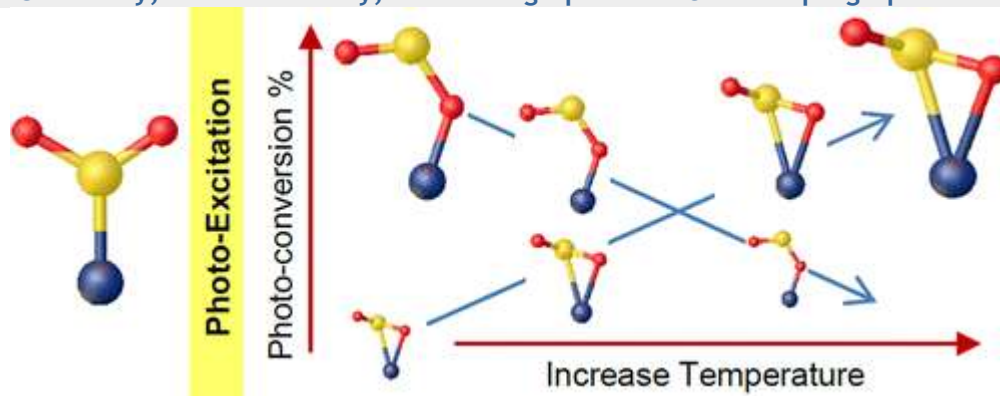
pp 11860-11863

Publication Date (Web): June 29, 2012 (Communication)

DOI: 10.1021/ja303943q

CCS Section:

Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes



A Versatile Kinetics-Controlled Coating Method To Construct Uniform Porous TiO₂ Shells for Multifunctional Core-Shell Structures

Wei Li, Jianping Yang, Zhangxiong Wu, Jinxiu Wang, Bin Li, Shanshan Feng, Yonghui Deng, Fan Zhang, and Dongyuan Zhao

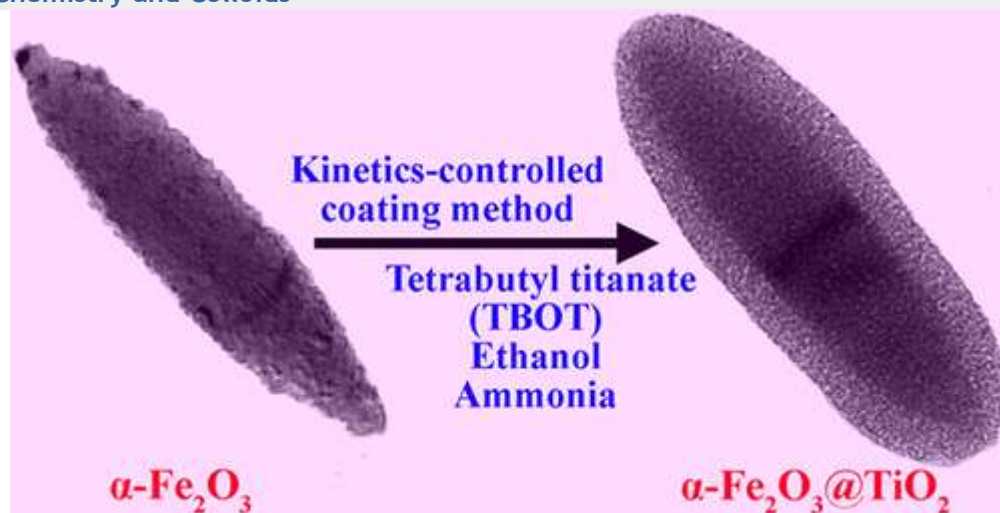
pp 11864-11867

Publication Date (Web): June 29, 2012 (Communication)

DOI: 10.1021/ja3037146

CCS Section:

Surface Chemistry and Colloids



Facile Access to Extremely Efficient Energy-Transfer Pairs via an Unexpected Reaction of Squaraines with Ketones

Shuaijun Yang, Jingsong You, Jingbo Lan, and Ge Gao

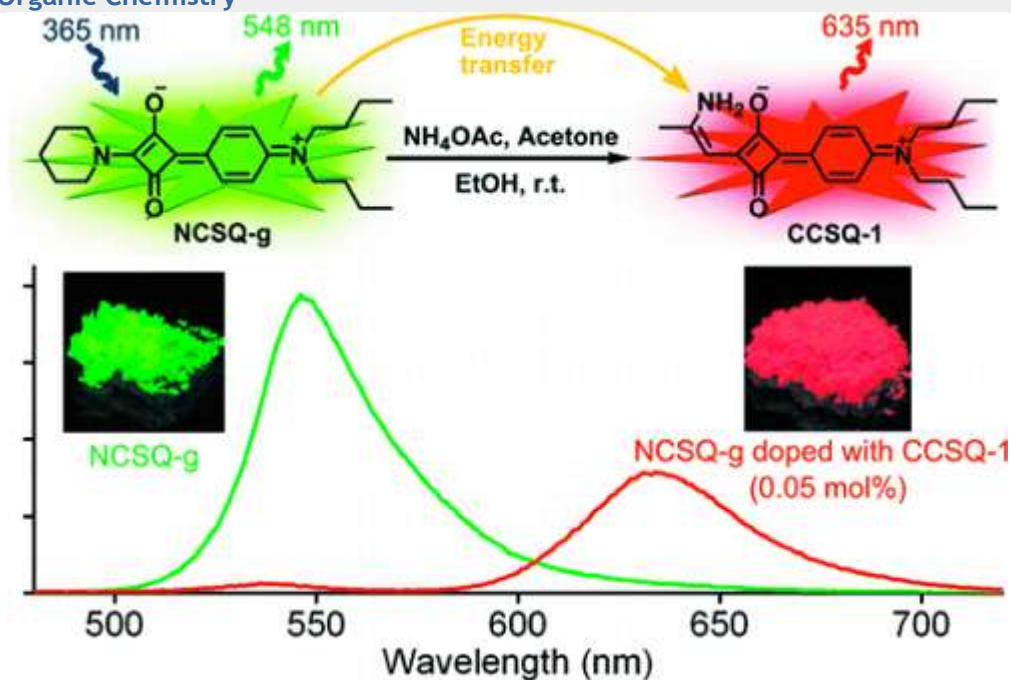
pp 11868-11871

Publication Date (Web): June 29, 2012 (Communication)

DOI: 10.1021/ja304082h

Section:

Physical Organic Chemistry



Enantioselective Conjugate Addition of Donor–Acceptor Hydrazones to α,β -Unsaturated Aldehydes through Formal Diaza–Ene Reaction: Access to 1,4-Dicarbonyl Compounds

Maitane Fernández, Uxue Uria, Jose L. Vicario, Efraím Reyes, and Luisa Carrillo

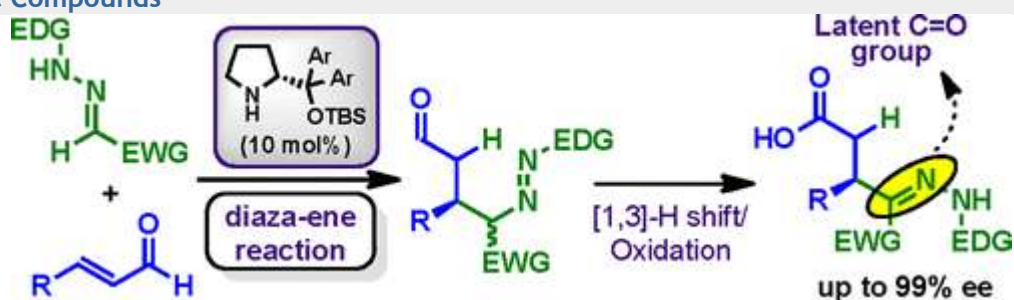
pp 11872-11875

Publication Date (Web): July 9, 2012 (Communication)

DOI: 10.1021/ja3041042

Section:

Aliphatic Compounds



Designed Diblock Oligonucleotide for the Synthesis of Spatially Isolated and Highly Hybridizable Functionalization of DNA–Gold Nanoparticle Nanoconjugates

Hao Pei, Fan Li, Ying Wan, Min Wei, Huajie Liu, Yan Su, Nan Chen, Qing Huang, and Chunhai Fan

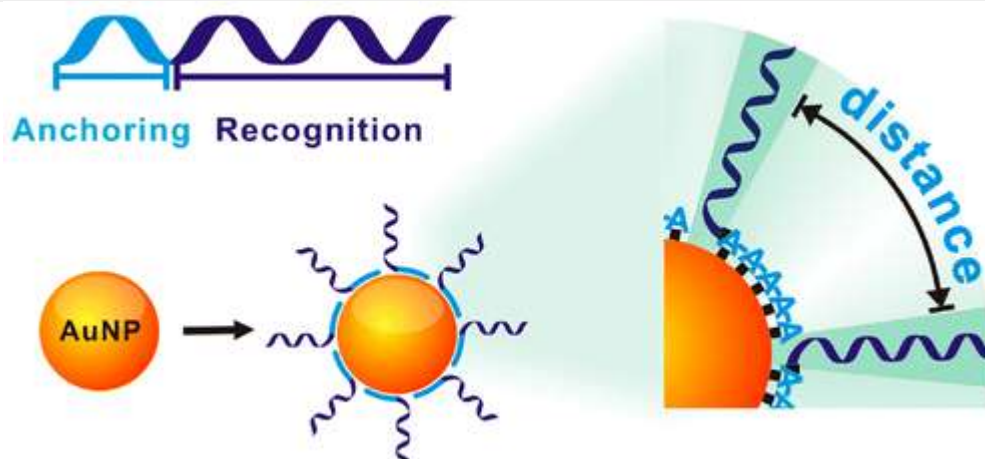
pp 11876–11879

Publication Date (Web): July 16, 2012 (Communication)

DOI: 10.1021/ja304118z

Section:

Biochemical Genetics



Icosahedral Platinum Alloy Nanocrystals with Enhanced Electrocatalytic Activities

Jianbo Wu, Liang Qi, Hongjun You, Adam Gross, Ju Li, and Hong Yang

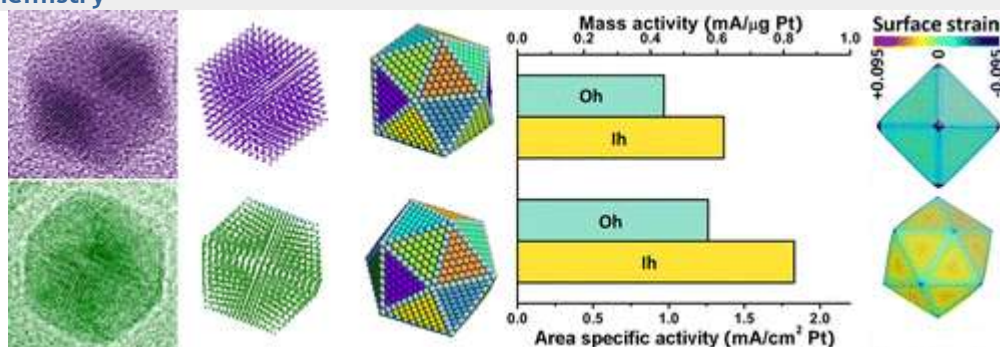
pp 11880–11883

Publication Date (Web): June 27, 2012 (Communication)

DOI: 10.1021/ja303950v

Section:

Electrochemistry



Reversible Light Switch for Macrocycle Mobility in a DNA Rotaxane

Finn Lohmann, Damian Ackermann, and Michael Famulok

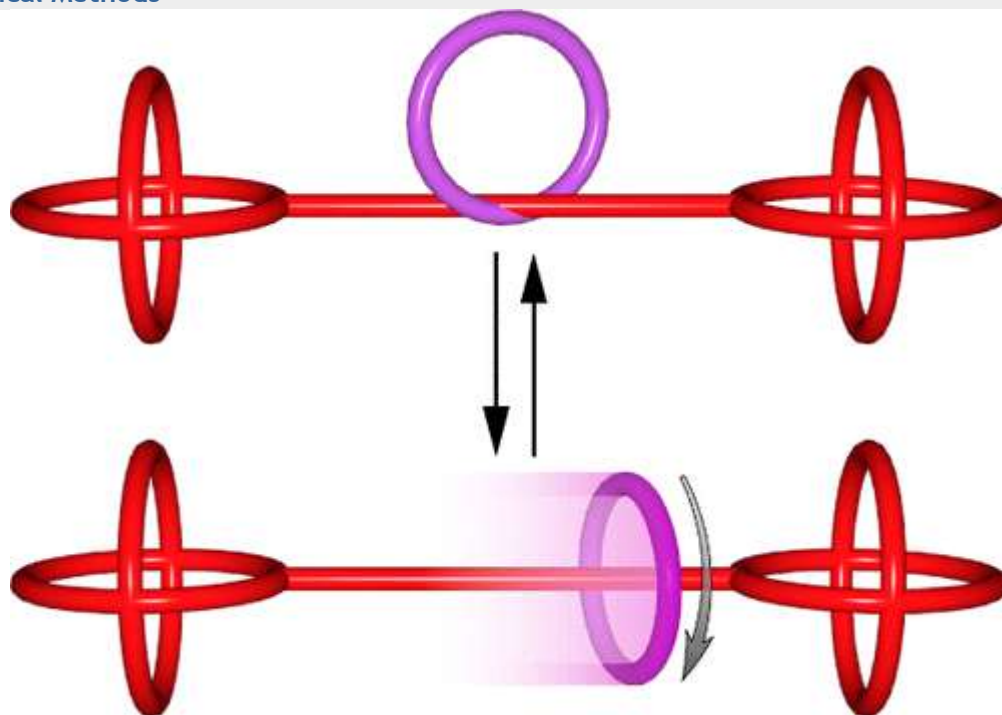
pp 11884-11887

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja3042096



ACS Section:
Biochemical Methods



Substituent Effects on Charge Transport in Films of Au Nanocrystals

Gemma L. Stansfield and P. John Thomas

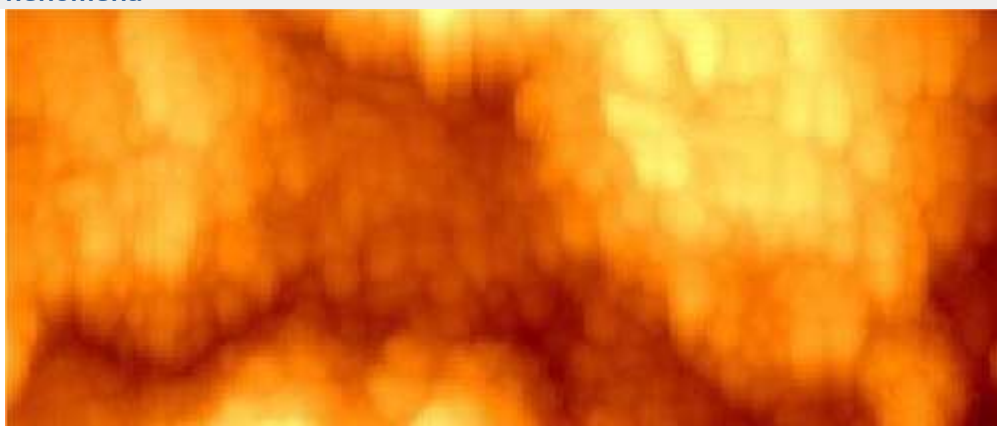
pp 11888-11891

Publication Date (Web): June 29, 2012 (Communication)

DOI: 10.1021/ja304348y



Section:
Electric Phenomena



A Self-Assembled Fluoride–Water Cyclic Cluster of $[F(H_2O)]_4^{4-}$ in a Molecular Box

Md. Alamgir Hossain, Musabbir A. Saeed, Avijit Pramanik, Bryan M. Wong, Syed A. Haque, and Douglas R. Powell

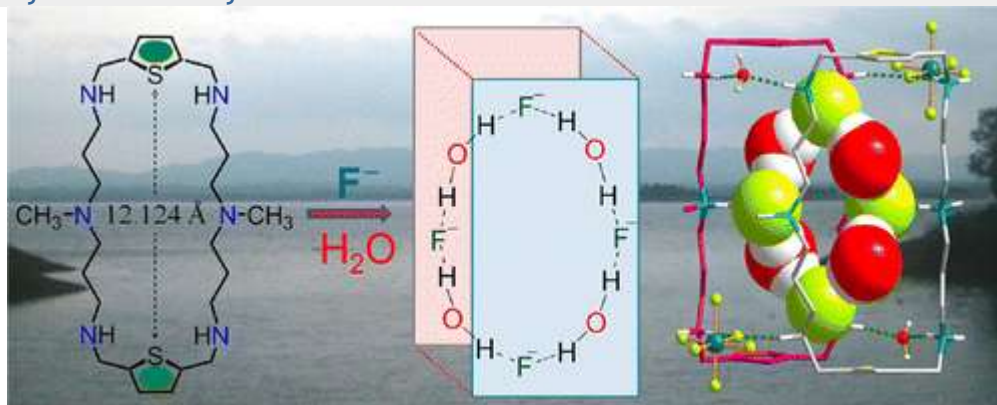
pp 11892-11895

Publication Date (Web): July 5, 2012 (Communication)

DOI: 10.1021/ja3043855

Section:

General Physical Chemistry



Enantioselective Conjugate Addition of Alkylboranes Catalyzed by a Copper–*N*-Heterocyclic Carbene Complex

Mika Yoshida, Hirohisa Ohmiya, and Masaya Sawamura

pp 11896-11899

Publication Date (Web): June 29, 2012 (Communication)

DOI: 10.1021/ja304481a

Section:

Heterocyclic Compounds (More than One Hetero Atom)



Iron-Catalyzed, Highly Regioselective Synthesis of α -Aryl Carboxylic Acids from Styrene Derivatives and CO_2

Mark D. Greenhalgh and Stephen P. Thomas

pp 11900-11903

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja3045053

Section:

Aliphatic Compounds



Correlating Proton Transfer Dynamics To Probe Location in Confined Environments

Myles Sedgwick, Richard L. Cole, Christopher D. Rithner, Debbie C. Crans, and Nancy E. Levinger
pp 11904-11907



Publication Date (Web): July 5, 2012 (Communication)

DOI: 10.1021/ja304529v

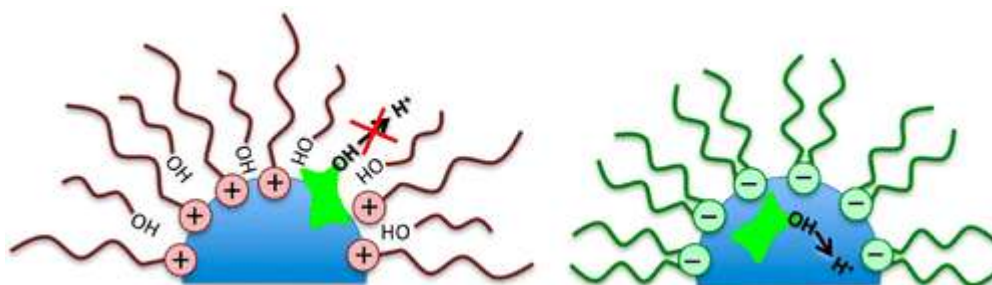
CCS Section:

Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes

Abstract | Supporting Info

-  Full Text HTML
-  Hi-Res PDF[484K]
-  PDF w/ Links[249K]

 Subscriber Access



Half-Metallic Ferromagnetism in Synthetic Co_9Se_8 Nanosheets with Atomic Thickness

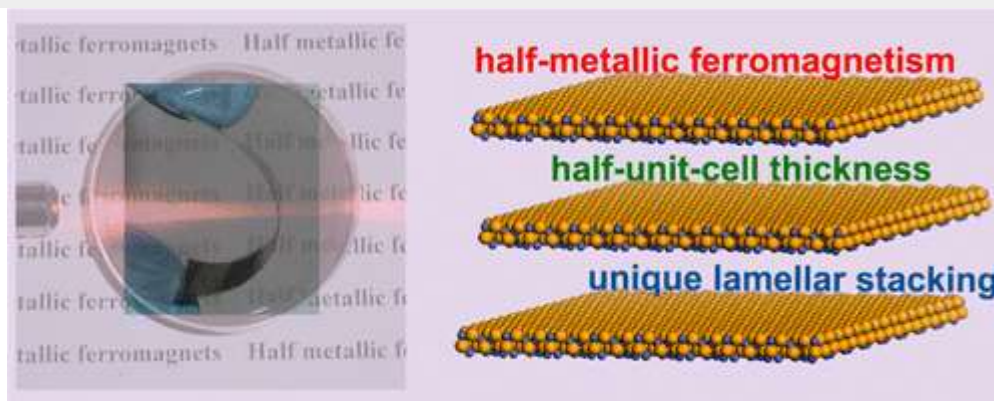
Xiaodong Zhang, Jiajia Zhang, Jinyang Zhao, Bica Pan, Mingguang Kong, Jing Chen, and Yi Xie
pp 11908-11911

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja3046603

CCS Section:

Magnetic Phenomena



Photocontrol of Tyrosine Phosphorylation in Mammalian Cells via Genetic Encoding of Photocaged Tyrosine

Eyal Arbely, Jessica Torres-Kolbus, Alexander Deiters, and Jason W. Chin

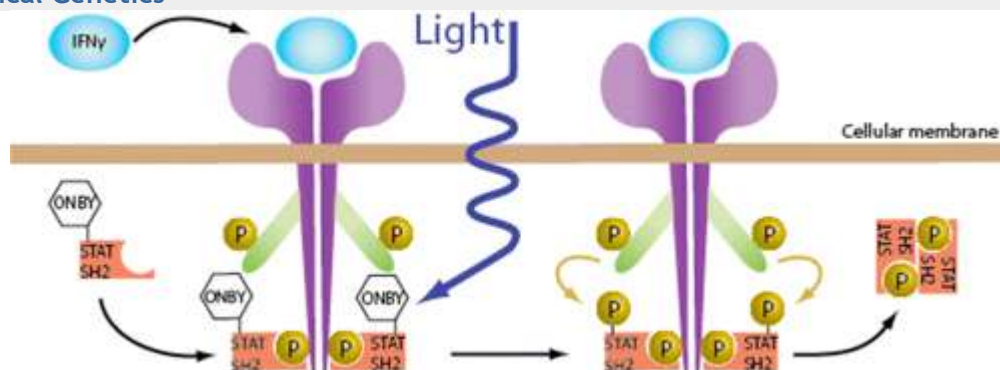
pp 11912-11915

Publication Date (Web): July 3, 2012 (Communication)

DOI: 10.1021/ja3046958

CCS Section:

Biochemical Genetics



Gold(I)-Catalyzed Asymmetric Cyclopropanation of Internal Alkynes

John F. Briones and Huw M. L. Davies

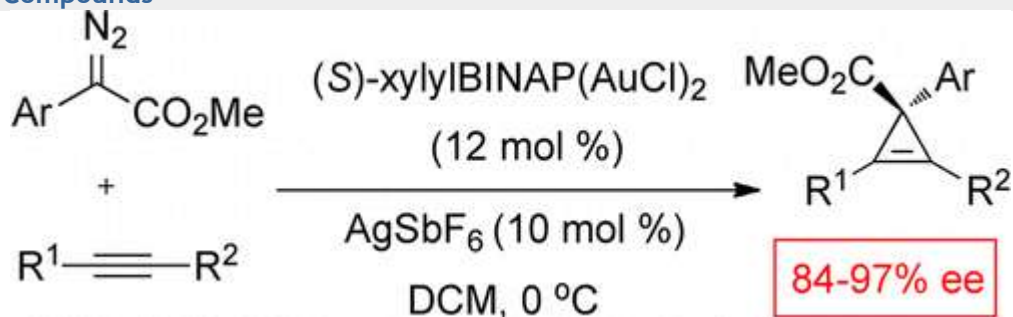
pp 11916-11919

Publication Date (Web): July 9, 2012 (Communication)

DOI: 10.1021/ja304506g

CCS Section:

Alicyclic Compounds



Enhancement of Poly(vinyl ester) Solubility in Supercritical CO₂ by Partial Fluorination: The Key Role of Polymer–Polymer Interactions

Etienne Girard, Thierry Tassaing, Séverine Camy, Jean-Stéphane Condoret, Jean-Daniel Marty, and Mathias Destarac

pp 11920-11923

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja304585d

CCS Section:

Physical Properties of Synthetic High Polymers



Synthesis of (*R*)-Mellein by a Partially Reducing Iterative Polyketide Synthase

Huihua Sun, Chun Loong Ho, Feiqing Ding, Ishin Soehano, Xue-Wei Liu, and Zhao-Xun Liang

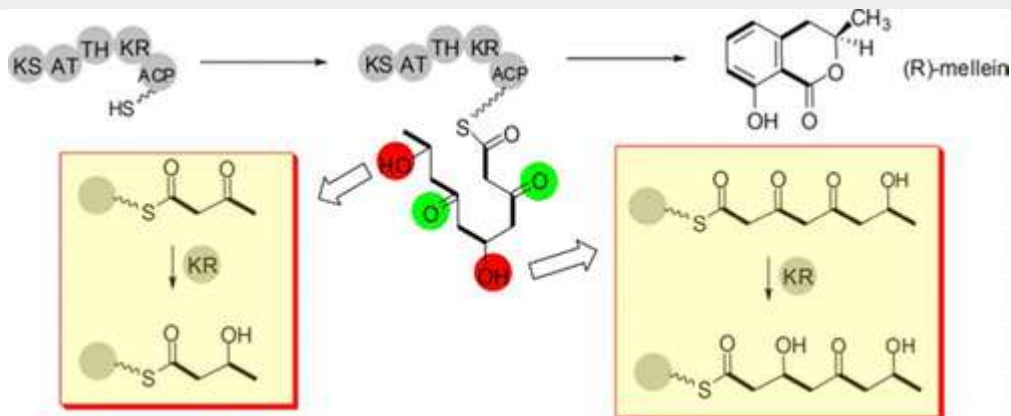
pp 11924-11927

Publication Date (Web): July 13, 2012 (Communication)

DOI: 10.1021/ja304905e

CCS Section:

Enzymes



Pseudoknot Preorganization of the PreQ₁ Class I Riboswitch

Tobias Santner, Ulrike Rieder, Christoph Kreutz, and Ronald Micura

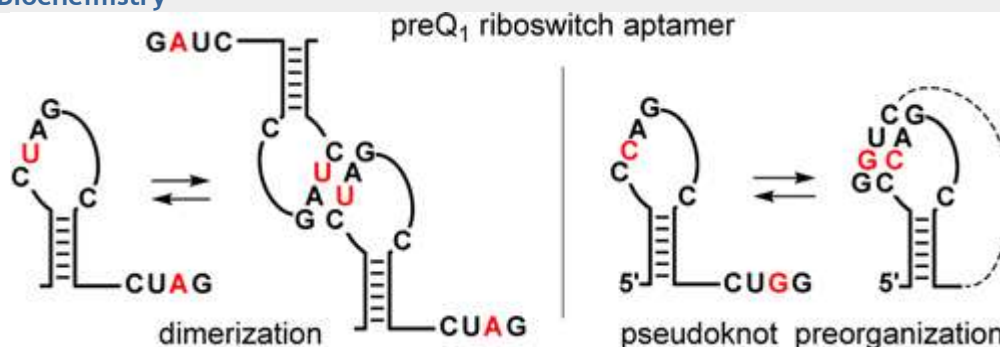
pp 11928-11931

Publication Date (Web): July 9, 2012 (Communication)

DOI: 10.1021/ja3049964

Section:

General Biochemistry



Regioselective Double Hydrophosphination of Terminal Arylacetylenes Catalyzed by an Iron Complex

Masahiro Kamitani, Masumi Itazaki, Chihiro Tamiya, and Hiroshi Nakazawa

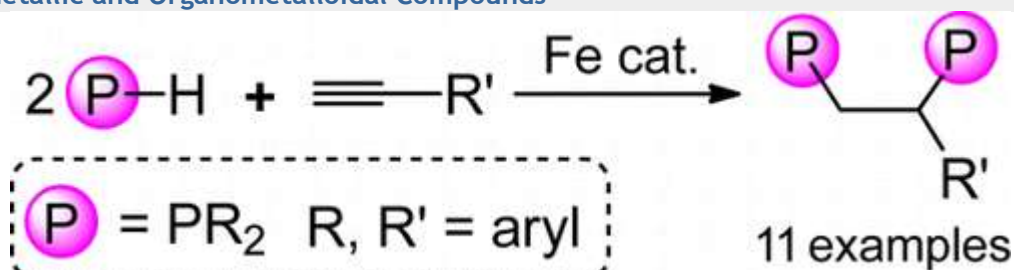
pp 11932-11935

Publication Date (Web): July 9, 2012 (Communication)

DOI: 10.1021/ja304818c

Section:

Organometallic and Organometalloidal Compounds



Generalized Synthesis of Zeolite-Type Metal–Organic Frameworks Encapsulating Immobilized Transition-Metal Clusters

Shou-Tian Zheng, Chengyu Mao, Tao Wu, Sangyune Lee, Pingyun Feng, and Xianhui Bu

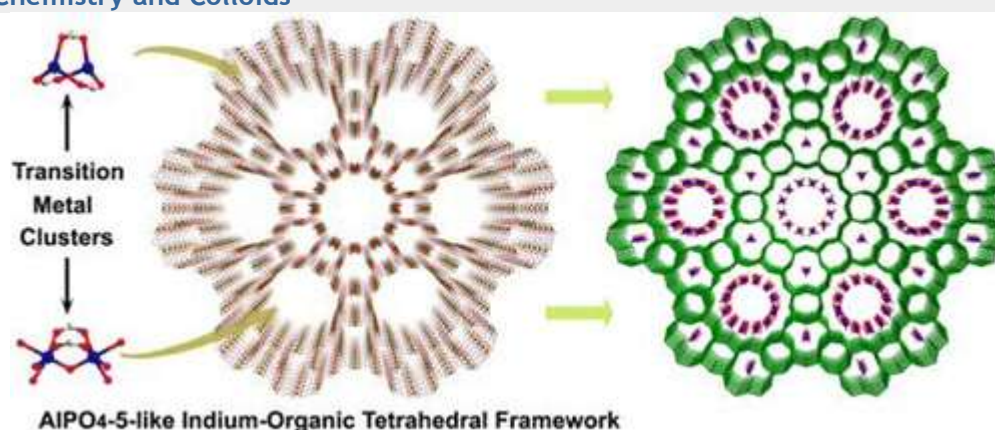
pp 11936-11939

Publication Date (Web): July 12, 2012 (Communication)

DOI: 10.1021/ja305181y

Section:

Surface Chemistry and Colloids



Negative Linear Compressibility of a Metal–Organic Framework

Wei Li, Michael R. Probert, Monica Kosa, Thomas D. Bennett, A. Thirumurugan, Ryan P. Burwood, Michele Parinello, Judith A. K. Howard, and Anthony K. Cheetham

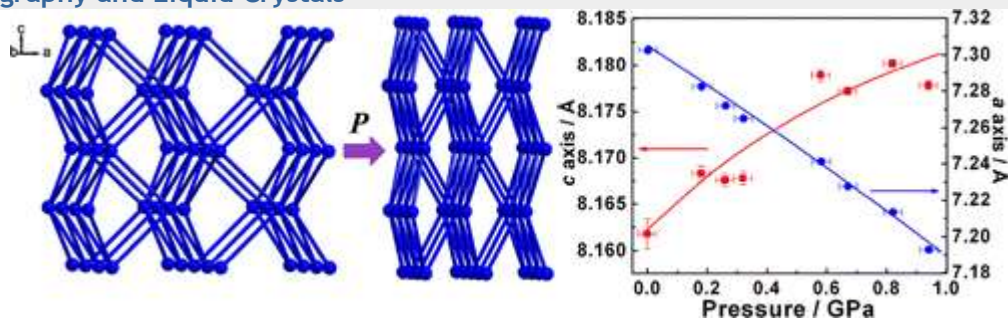
pp 11940–11943

Publication Date (Web): July 3, 2012 (Communication)

DOI: 10.1021/ja305196u

CCS Section:

Crystallography and Liquid Crystals



Quantification of Hydrogen Peroxide during the Low-Temperature Oxidation of Alkanes

Chiheb Bahrini, Olivier Herbinet, Pierre-Alexandre Glaude, Coralie Schoemaeker, Christa Fittschen, and Frédérique Battin-Leclerc

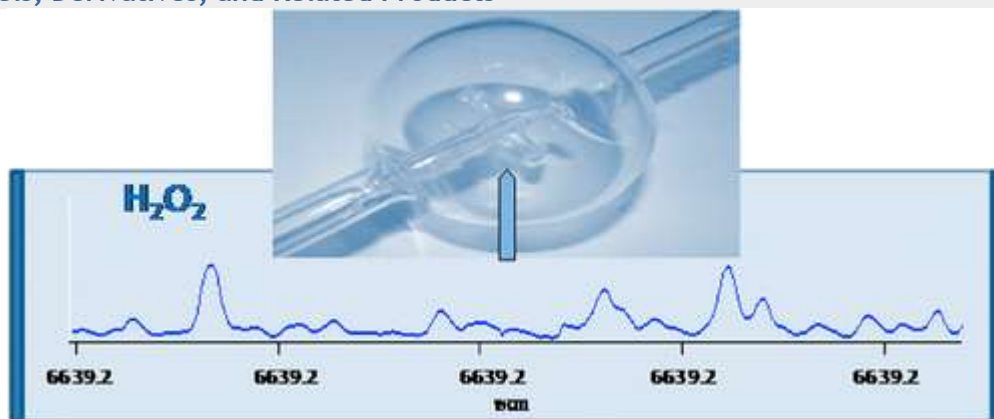
pp 11944–11947

Publication Date (Web): July 2, 2012 (Communication)

DOI: 10.1021/ja305200h

CCS Section:

Fossil Fuels, Derivatives, and Related Products



Pd(II)-Catalyzed Ortho Trifluoromethylation of Arenes and Insights into the Coordination Mode of Acidic Amide Directing Groups

Xing-Guo Zhang, Hui-Xiong Dai, Masayuki Wasa, and Jin-Quan Yu

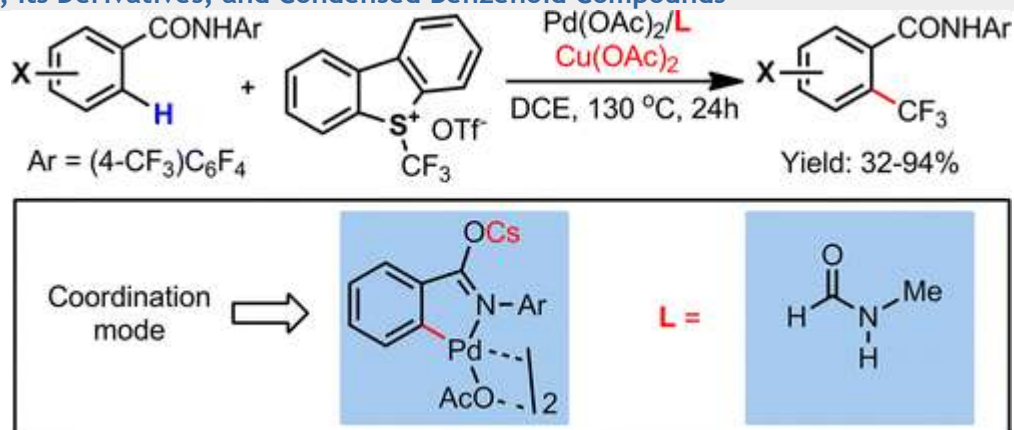
pp 11948-11951

Publication Date (Web): July 11, 2012 (Communication)

DOI: 10.1021/ja305259n

Section:

Benzene, Its Derivatives, and Condensed Benzenoid Compounds



De Novo Asymmetric Synthesis of All-D-, All-L-, and D-/L-Oligosaccharides Using Atom-less Protecting Groups

Ravula Satheesh Babu, Qian Chen, Sang-Woo Kang, Maoquan Zhou, and George A. O'Doherty

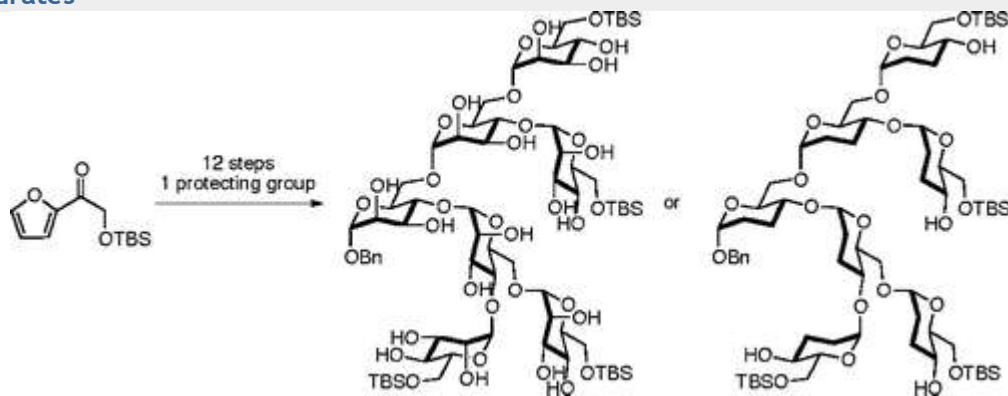
pp 11952-11955

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja305321e

Section:

Carbohydrates



Azide Addition to an Endohedral Metallofullerene: Formation of Azafulleroids of $\text{Sc}_3\text{N}@I_h\text{-C}_{80}$

Tong-Xin Liu, Tao Wei, San-E Zhu, Guan-Wu Wang, Mingzhi Jiao, Shangfeng Yang, Faye L. Bowles, Marilyn M. Olmstead, and Alan L. Balch

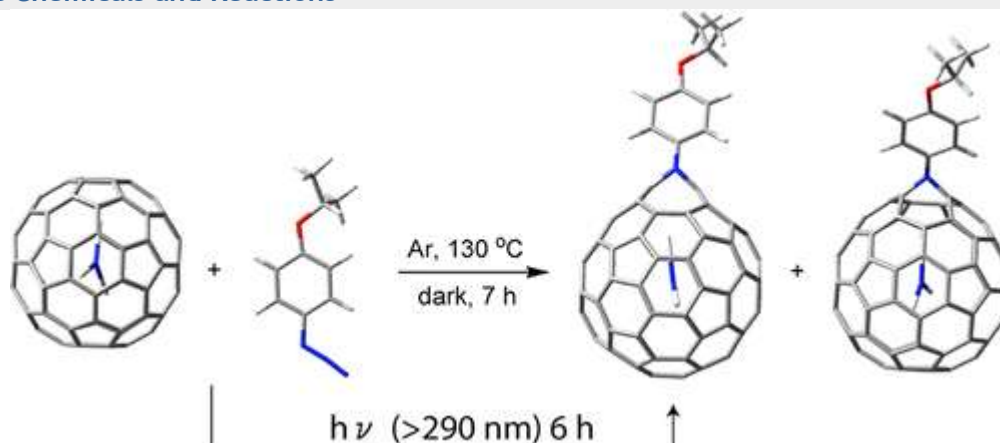
pp 11956-11959

Publication Date (Web): July 12, 2012 (Communication)

DOI: 10.1021/ja305446v

CCS Section:

Inorganic Chemicals and Reactions



Iridium-Catalyzed Intermolecular Hydroamination of Unactivated Aliphatic Alkenes with Amides and Sulfonamides

Christo S. Sevov, Jianrong (Steve) Zhou, and John F. Hartwig

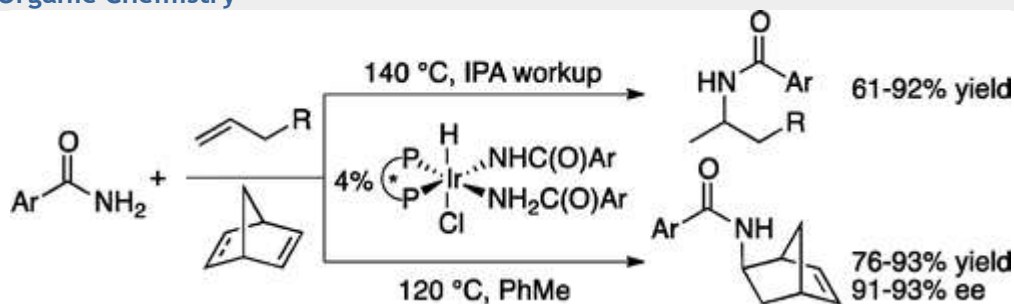
pp 11960-11963

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja3052848

CCS Section:

General Organic Chemistry



2,6-Diazasemibullvalenes: Synthesis, Structural Characterization, Reaction Chemistry, and Theoretical Analysis

Shaoguang Zhang, Junnian Wei, Ming Zhan, Qian Luo, Chao Wang, Wen-Xiong Zhang, and Zhenfeng Xi

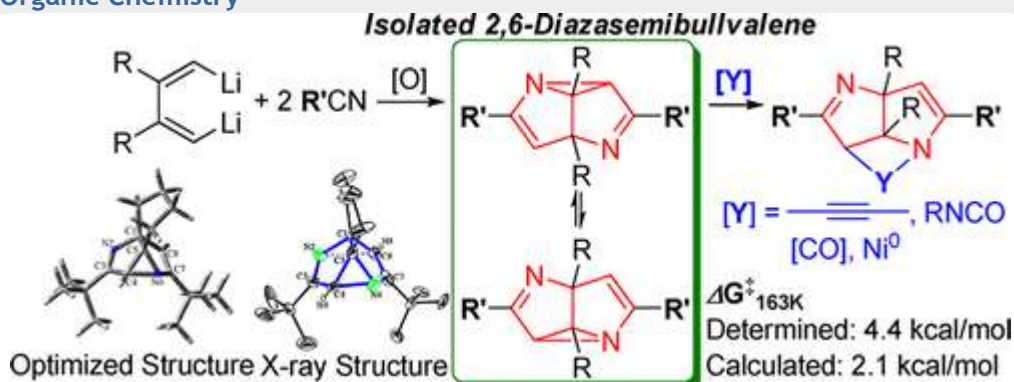
pp 11964-11967

Publication Date (Web): July 11, 2012 (Communication)

DOI: 10.1021/ja305581f

Section:

Physical Organic Chemistry



A Metal-Directed Self-Assembled Electroactive Cage with Bis(pyrrolo)tetrathiafulvalene (BPTTF) Side Walls

Sébastien Bivaud, Jean-Yves Balandier, Marcos Chas, Magali Allain, Sébastien Goeb, and Marc Sallé

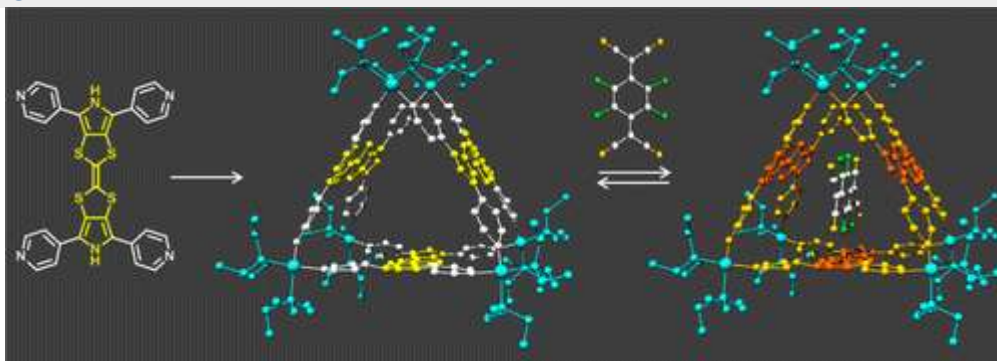
pp 11968-11970

Publication Date (Web): July 6, 2012 (Communication)

DOI: 10.1021/ja305451v

Section:

Inorganic Chemicals and Reactions



Encapsulation of Ion Pairs in Extended, Self-Assembled Structures

Toshiaki Taira, Dariush Ajami, and Julius Rebek, Jr.

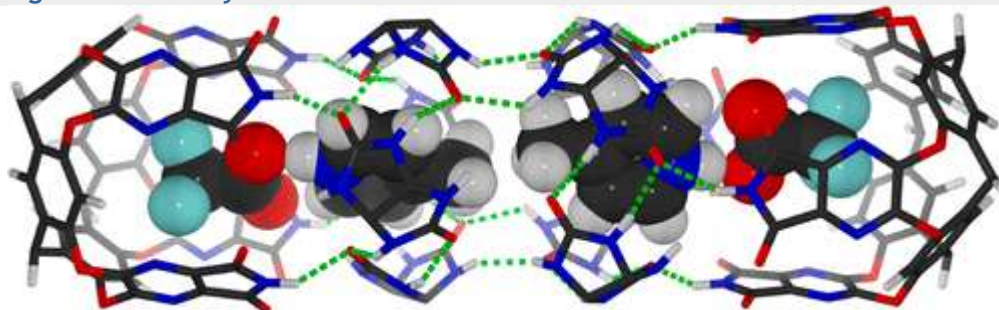
pp 11971-11973

Publication Date (Web): July 5, 2012 (Communication)

DOI: 10.1021/ja304556c

CCS Section:

Physical Organic Chemistry



An Intramolecular G-Quadruplex Structure Is Required for Binding of Telomeric Repeat-Containing RNA to the Telomeric Protein TRF2

Giulia Biffi, David Tannahill, and Shankar Balasubramanian

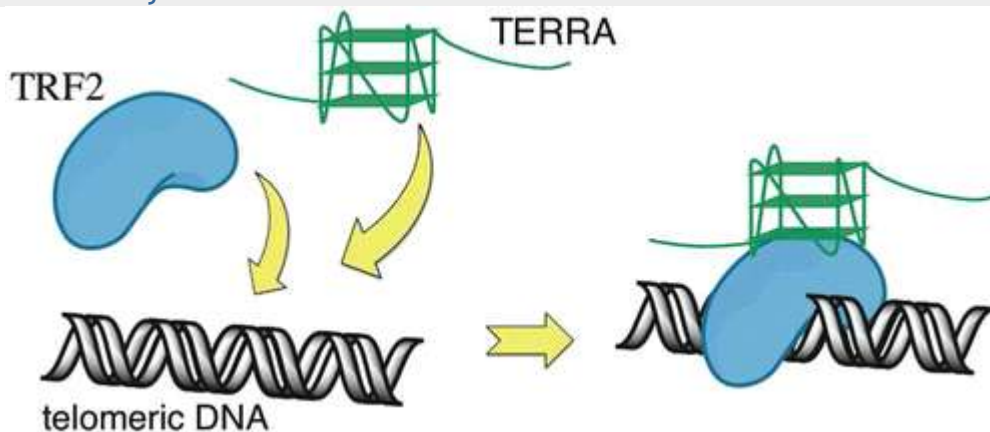
pp 11974-11976

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja305734x

CCS Section:

General Biochemistry



Can Zinc Really Exist in Its Oxidation State +III?

Tobias Schlöder, Martin Kaupp, and Sebastian Riedel

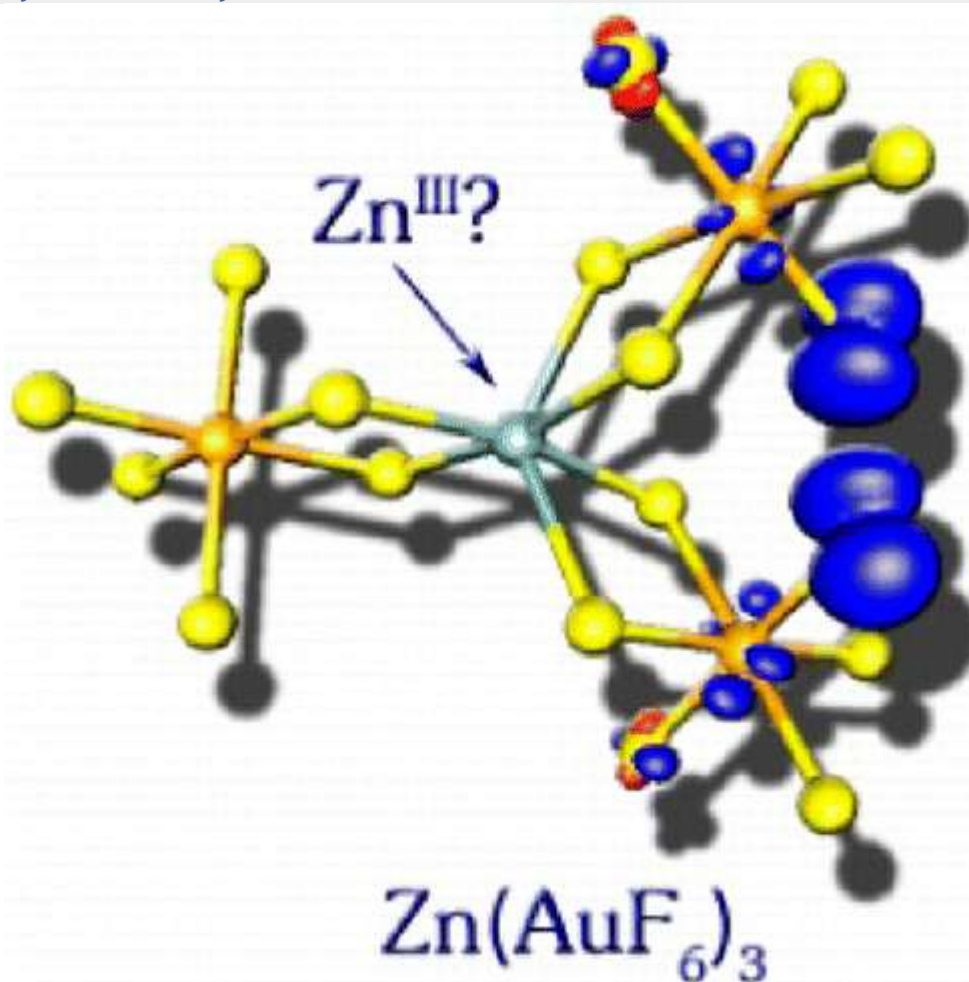
pp 11977-11979

Publication Date (Web): July 9, 2012 (Communication)

DOI: 10.1021/ja3052409

Section:

General Physical Chemistry



Copper-Catalyzed Aerobic Aliphatic C–H Oxygenation Directed by an Amidine Moiety

Yi-Feng Wang, Hui Chen, Xu Zhu, and Shunsuke Chiba

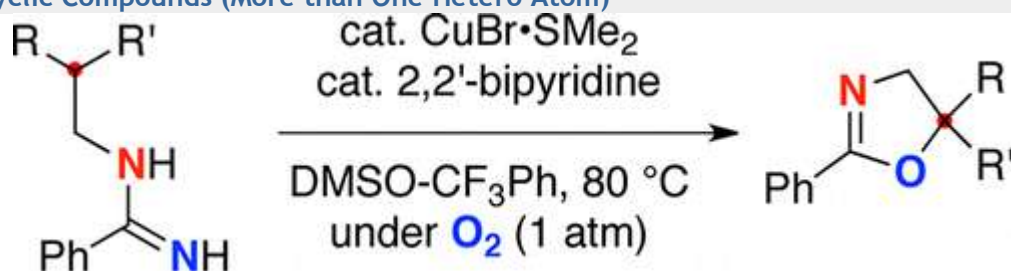
pp 11980-11983

Publication Date (Web): July 12, 2012 (Communication)

DOI: 10.1021/ja305833a

Section:

Heterocyclic Compounds (More than One Hetero Atom)



Total Synthesis and Complete Stereostructure of Gambieric Acid A

Haruhiko Fuwa, Kazuya Ishigai, Keisuke Hashizume, and Makoto Sasaki

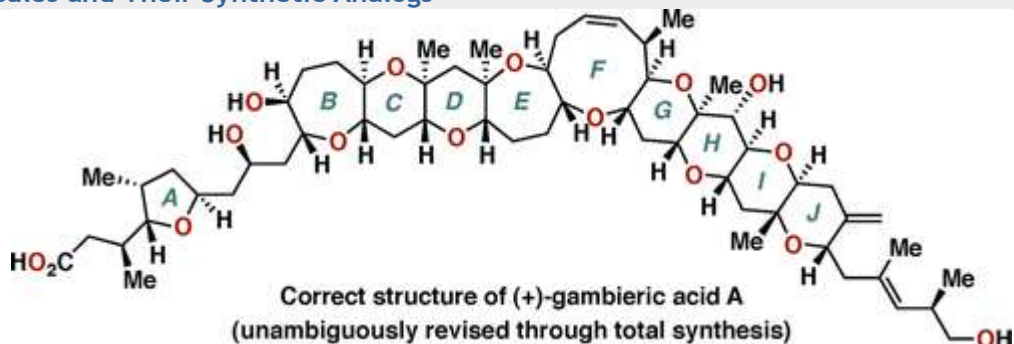
pp 11984-11987

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja305864z

CCS Section:

Biomolecules and Their Synthetic Analogs



Merochlorins A–D, Cyclic Meroterpenoid Antibiotics Biosynthesized in Divergent Pathways with Vanadium-Dependent Chloroperoxidases

Leonard Kaysser, Peter Bernhardt, Sang-Jip Nam, Sandra Loesgen, J. Graham Ruby, Peter Skewes-Cox, Paul R. Jensen, William Fenical, and Bradley S. Moore

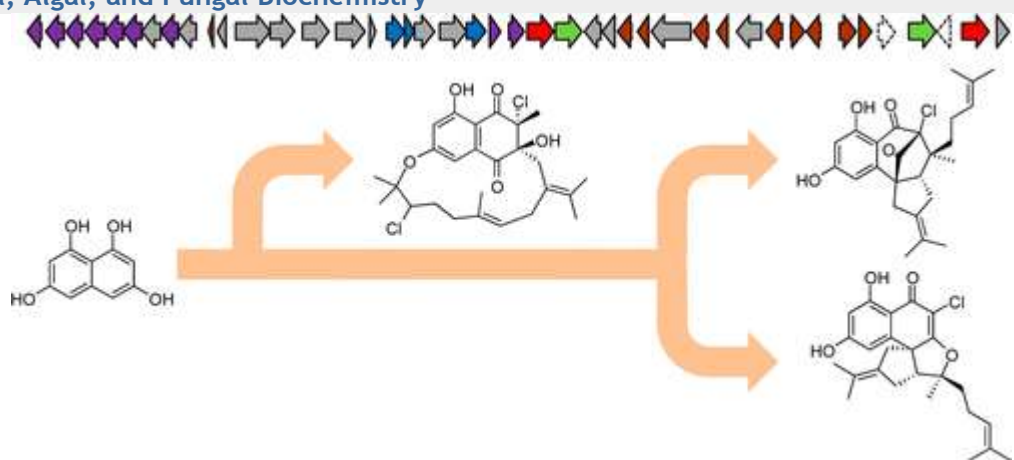
pp 11988-11991

Publication Date (Web): July 12, 2012 (Communication)

DOI: 10.1021/ja305665f

CCS Section:

Microbial, Algal, and Fungal Biochemistry



Highly Enantioselective Proton-Initiated Polycyclization of Polyenes

Karavadhi Surendra and E. J. Corey

pp 11992-11994

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja305851h

Section:

Benzene, Its Derivatives, and Condensed Benzenoid Compounds



Total Synthesis of (-)-Isoschizogamine

Yusuke Miura, Noriyuki Hayashi, Satoshi Yokoshima, and Tohru Fukuyama

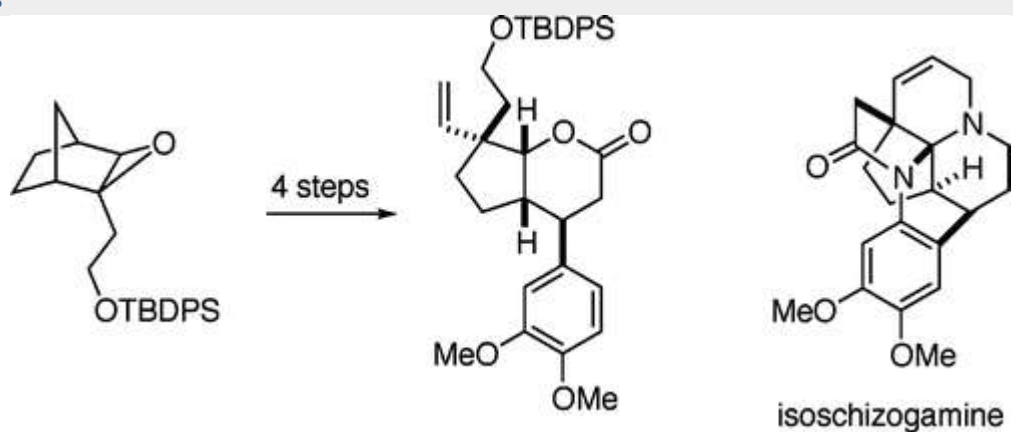
pp 11995-11997

Publication Date (Web): July 10, 2012 (Communication)

DOI: 10.1021/ja305856q

Section:

Alkaloids



Reversibly Switching the Surface Porosity of a DNA Tetrahedron

Chuan Zhang, Cheng Tian, Xiang Li, Hang Qian, Chenhui Hao, Wen Jiang, and Chengde Mao

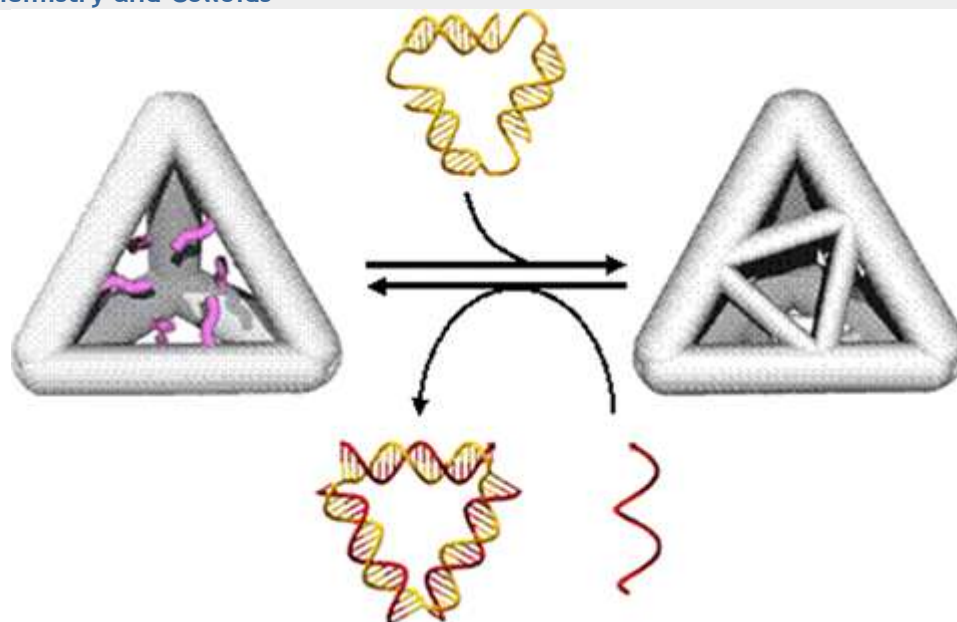
pp 11998-12001

Publication Date (Web): July 16, 2012 (Communication)

DOI: 10.1021/ja305969c

CCS Section:

Surface Chemistry and Colloids



ARTICLES

Connecting Binuclear Pd(III) and Mononuclear Pd(IV) Chemistry by Pd–Pd Bond Cleavage

David C. Powers, Eunsung Lee, Alireza Ariafard, Melanie S. Sanford, Brian F. Yates, Allan J. Canty, and Tobias Ritter

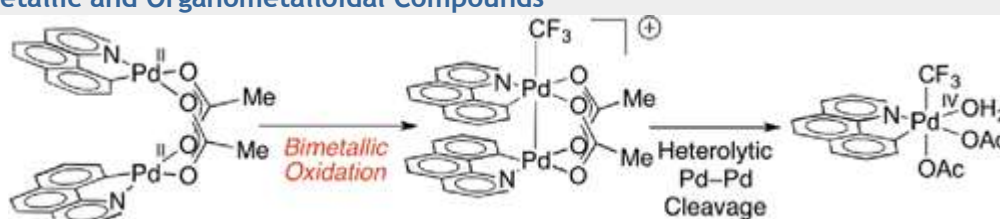
pp 12002-12009

Publication Date (Web): July 17, 2012 (Article)

DOI: 10.1021/ja304401u

CCS Section:

Organometallic and Organometalloidal Compounds



Causation in a Cascade: The Origins of Selectivities in Intramolecular Nitrone Cycloadditions

Elizabeth H. Krenske, Sesil Agopcan, Viktorya Aviyente, K. N. Houk, Brian A. Johnson, and Andrew B. Holmes

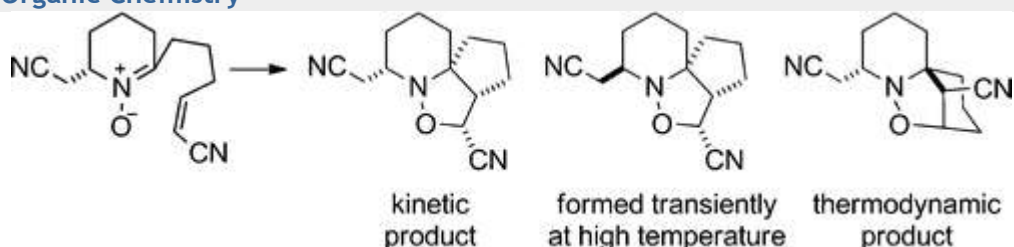
pp 12010-12015

Publication Date (Web): July 12, 2012 (Article)

DOI: 10.1021/ja300002k

ACS Section:

Physical Organic Chemistry



Chemical Characterization of the Smallest S-Nitrosothiol, HSNO; Cellular Cross-talk of H₂S and S-Nitrosothiols

Milos R. Filipovic, Jan Lj. Miljkovic, Thomas Nauser, Maksim Royzen, Katharina Klos, Tatyana Shubina, Willem H. Koppenol, Stephen J. Lippard, and Ivana Ivanović-Burmazović

pp 12016-12027

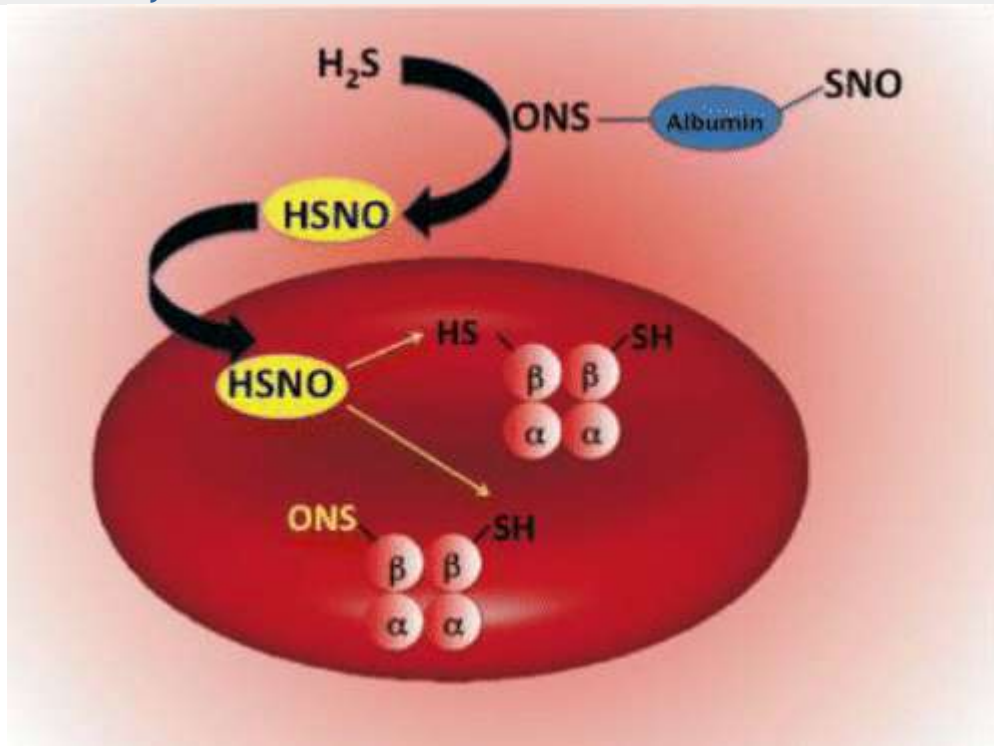
Publication Date (Web): June 28, 2012 (Article)

DOI: 10.1021/ja3009693

ACS AuthorChoice

ACS Section:

General Biochemistry



Realistic Cluster Modeling of Electron Transport and Trapping in Solvated TiO_2 Nanoparticles

Jing Zhang, Thomas F. Hughes, Michael Steigerwald, Louis Brus, and Richard A. Friesner

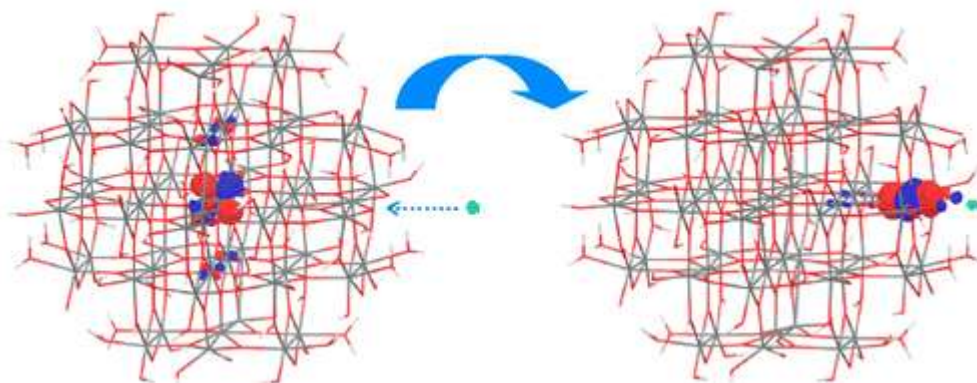
pp 12028-12042

Publication Date (Web): June 28, 2012 (Article)

DOI: 10.1021/ja3013787

CCS Section:

Electric Phenomena



Magnesium Fluctuations Modulate RNA Dynamics in the SAM-I Riboswitch

Ryan L. Hayes, Jeffrey K. Noel, Udayan Mohanty, Paul C. Whitford, Scott P. Hennelly, José N. Onuchic, and Karissa Y. Sanbonmatsu

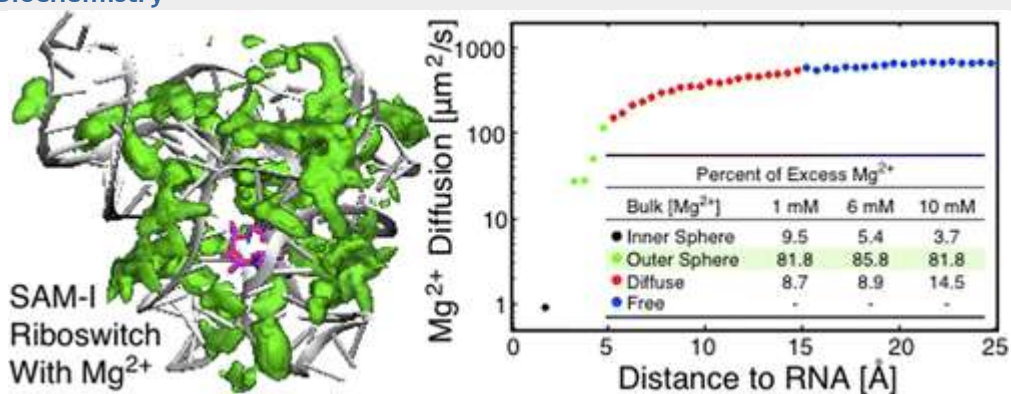
pp 12043-12053

Publication Date (Web): May 21, 2012 (Article)

DOI: 10.1021/ja301454u

CCS Section:

General Biochemistry



Organic Nanostructures on Hydrogen-Terminated Silicon Report on Electric Field Modulation of Dangling Bond Charge State

Peter M. Ryan, Lucian Livadaru, Gino A. DiLabio, and Robert A. Wolkow

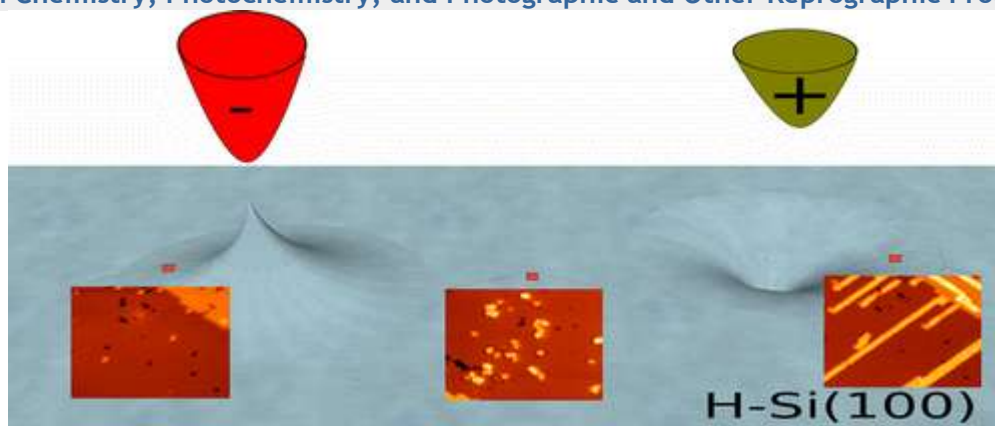
pp 12054-12063

Publication Date (Web): June 18, 2012 (Article)

DOI: 10.1021/ja3017208

CCS Section:

Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes



Can a C–H···O Interaction Be a Determinant of Conformation?

Christopher R. Jones, Pranjal K. Baruah, Amber L. Thompson, Steve Scheiner, and Martin D. Smith

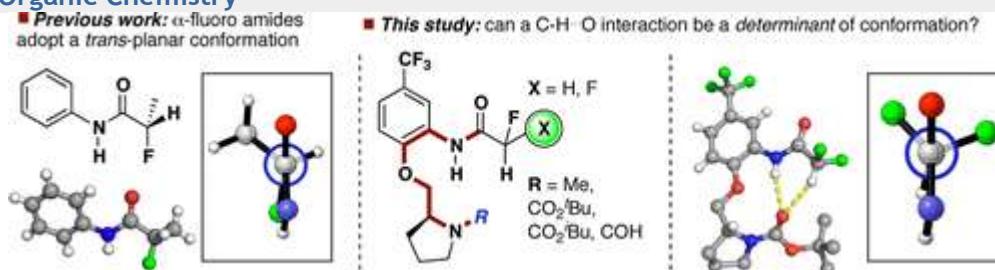
pp 12064-12071

Publication Date (Web): July 12, 2012 (Article)

DOI: 10.1021/ja301318a

CCS Section:

Physical Organic Chemistry



Tunneling Characteristics of Au–Alkanedithiol–Au Junctions formed via Nanotransfer Printing (nTP)

Jeremy R. Niskala, William C. Rice, Robert C. Bruce, Timothy J. Merkel, Frank Tsui, and Wei You

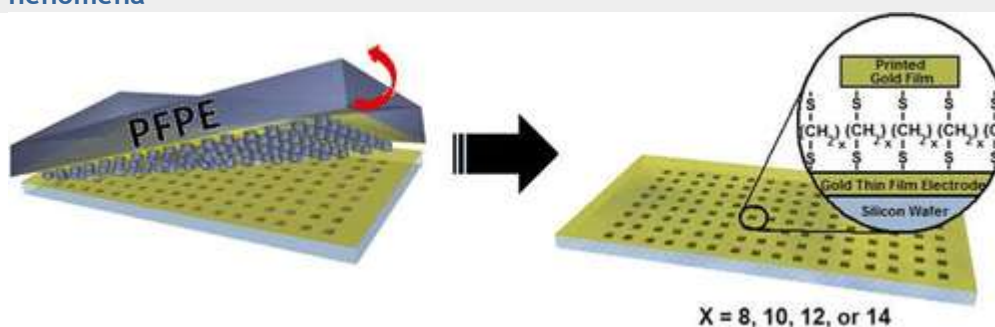
pp 12072-12082

Publication Date (Web): June 21, 2012 (Article)

DOI: 10.1021/ja302602b

CCS Section:

Electric Phenomena



Core–Satellites Assembly of Silver Nanoparticles on a Single Gold Nanoparticle via Metal Ion-Mediated Complex

Inhee Choi, Hyeon Don Song, Suseung Lee, Young In Yang, Taewook Kang, and Jongheop Yi

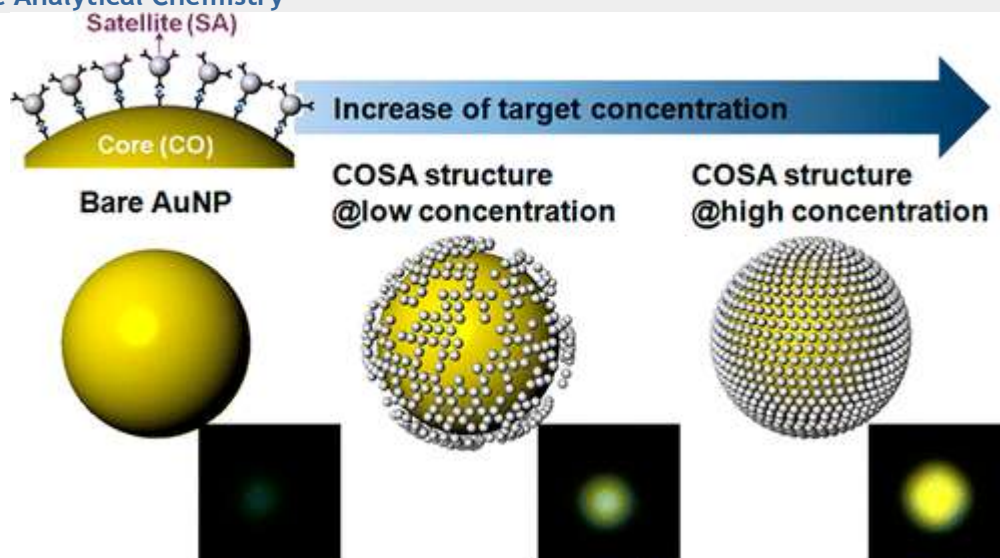
pp 12083-12090

Publication Date (Web): June 29, 2012 (Article)

DOI: 10.1021/ja302684w

CCS Section:

Inorganic Analytical Chemistry



Highly Fluorescent Chameleon Nanoparticles and Polymer Films: Multicomponent Organic Systems that Combine FRET and Photochromic Switching

Sanghoon Kim, Seong-Jun Yoon, and Soo Young Park

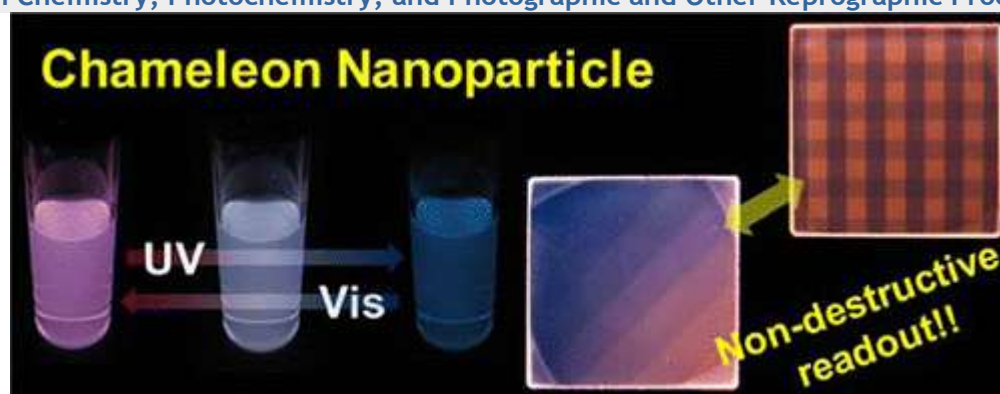
pp 12091-12097

Publication Date (Web): June 29, 2012 (Article)

DOI: 10.1021/ja3027295

CCS Section:

Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes



Oxyanion Steering and CH- π Interactions as Key Elements in an N-Heterocyclic Carbene-Catalyzed [4 + 2] Cycloaddition

Scott E. Allen, Jessada Mahatthananchai, Jeffrey W. Bode, and Marisa C. Kozlowski

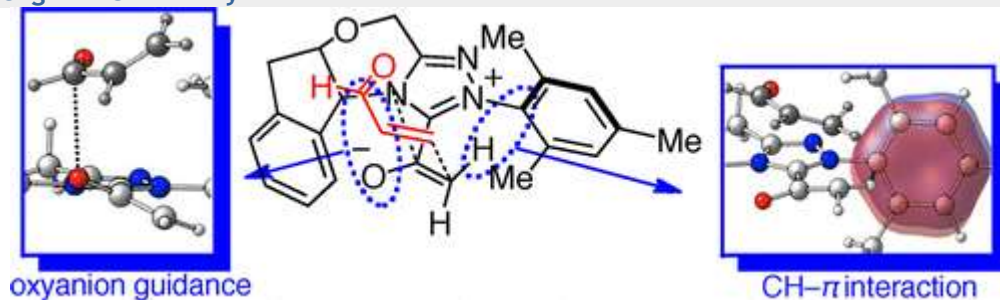
pp 12098-12103

Publication Date (Web): July 4, 2012 (Article)

DOI: 10.1021/ja302761d

CCS Section:

Physical Organic Chemistry



Cation $\otimes 3\pi$: Cooperative Interaction of a Cation and Three Benzenes with an Anomalous Order in Binding Energy

Manyi Duan, Bo Song, Guosheng Shi, Haikuo Li, Guangfu Ji, Jun Hu, Xiangrong Chen, and Haiping Fang

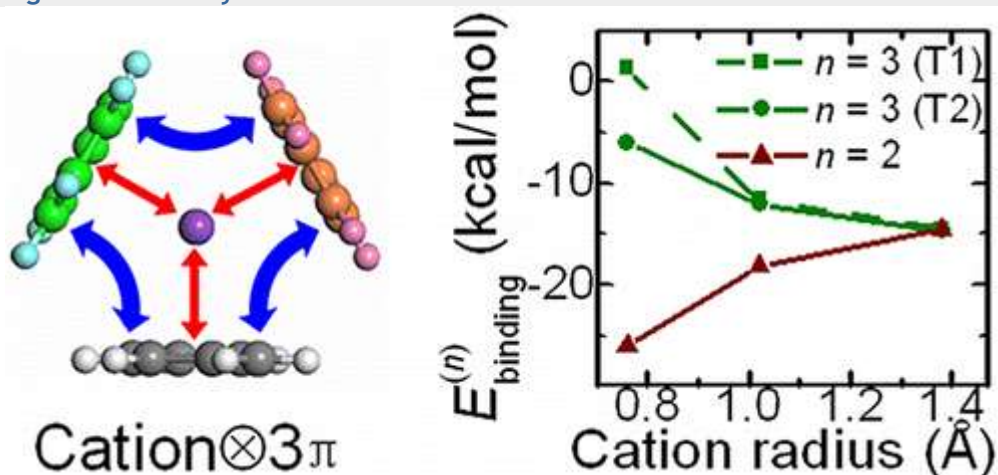
pp 12104-12109

Publication Date (Web): July 2, 2012 (Article)

DOI: 10.1021/ja302918t

CCS Section:

Physical Organic Chemistry



Electron Transfer in Quantum-Dot-Sensitized ZnO Nanowires: Ultrafast Time-Resolved Absorption and Terahertz Study

Karel Židek, Kaibo Zheng, Carlito S. Ponseca, Jr., Maria E. Messing, L. Reine Wallenberg, Pavel Chábera, Mohamed Abdellah, Villy Sundström, and Tõnu Pullerits

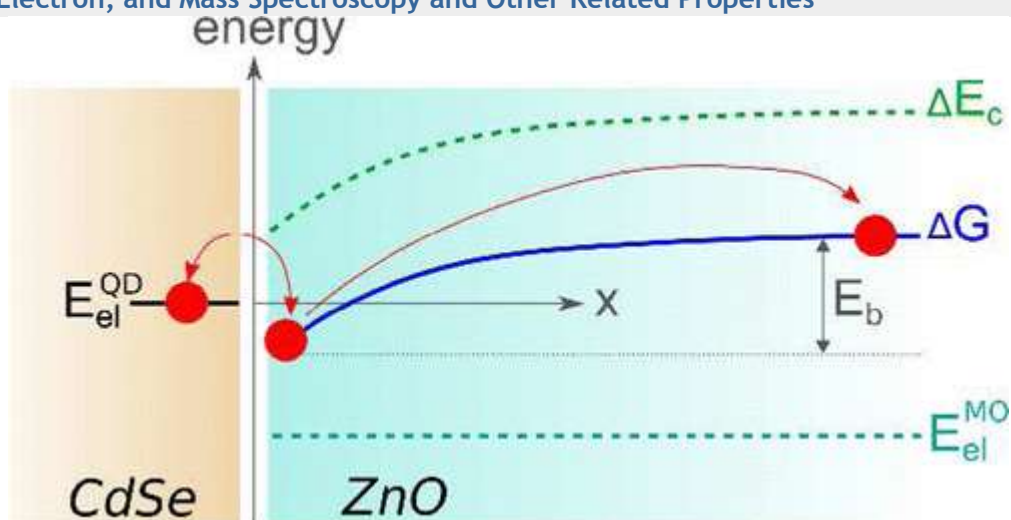
pp 12110-12117

Publication Date (Web): June 25, 2012 (Article)

DOI: 10.1021/ja3029679

CCS Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties



Conformational Dynamics and Stability of HP35 Studied with 2D IR Vibrational Echoes

Jean K. Chung, Megan C. Thielges, and Michael D. Fayer

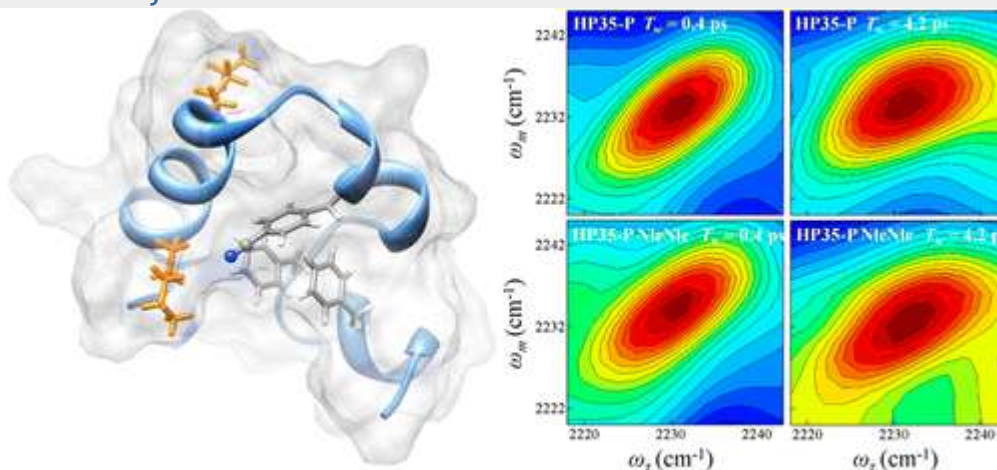
pp 12118-12124

Publication Date (Web): July 5, 2012 (Article)

DOI: 10.1021/ja303017d

CCS Section:

General Biochemistry



Intestinal Permeability of Cyclic Peptides: Common Key Backbone Motifs Identified

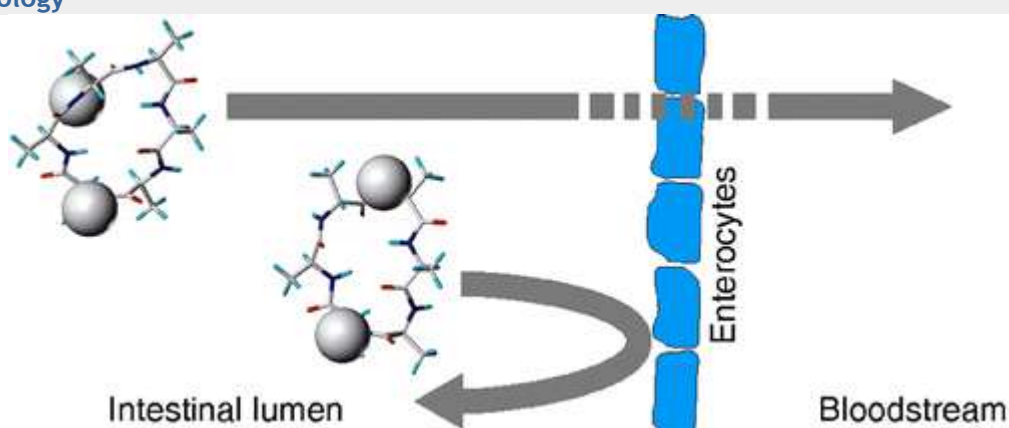
Johannes G. Beck, Jayanta Chatterjee, Burkhardt Laufer, Marelli Udaya Kiran, Andreas O. Frank, Stefanie Neubauer, Oded Ovadia, Sarit Greenberg, Chaim Gilon, Amnon Hoffman, and Horst Kessler

pp 12125-12133

Publication Date (Web): June 27, 2012 (Article)

DOI: 10.1021/ja303200d

CCS Section:
Pharmacology



Biomimetic Dopamine Derivative for Selective Polymer Modification of Halloysite Nanotube Lumen

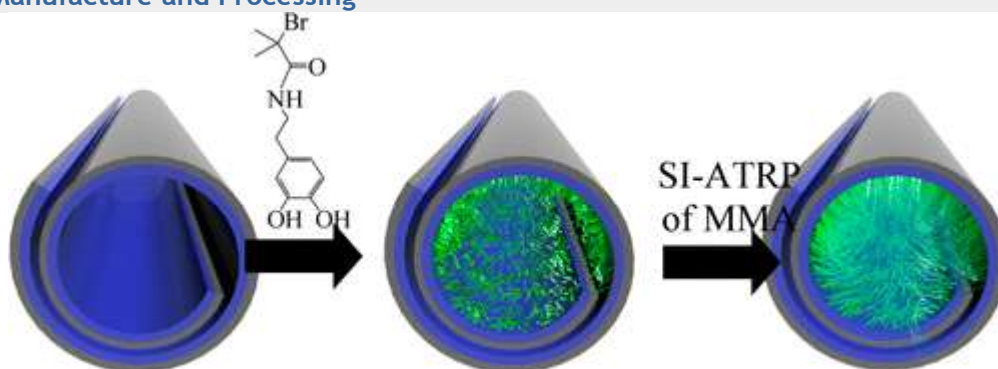
Weng On Yah, Hang Xu, Hiroe Soejima, Wei Ma, Yuri Lvov, and Atsushi Takahara

pp 12134-12137

Publication Date (Web): July 5, 2012 (Article)

DOI: 10.1021/ja303340f

CCS Section:
Plastics Manufacture and Processing



A Tale of Two Metals: New Cerium Iron Borocarbide Intermetallics Grown from Rare-Earth/Transition Metal Eutectic Fluxes

Patricia C. Tucker, Jason Nyffeler, Banghao Chen, Andrew Ozarowski, Ryan Stillwell, and Susan E. Lattner

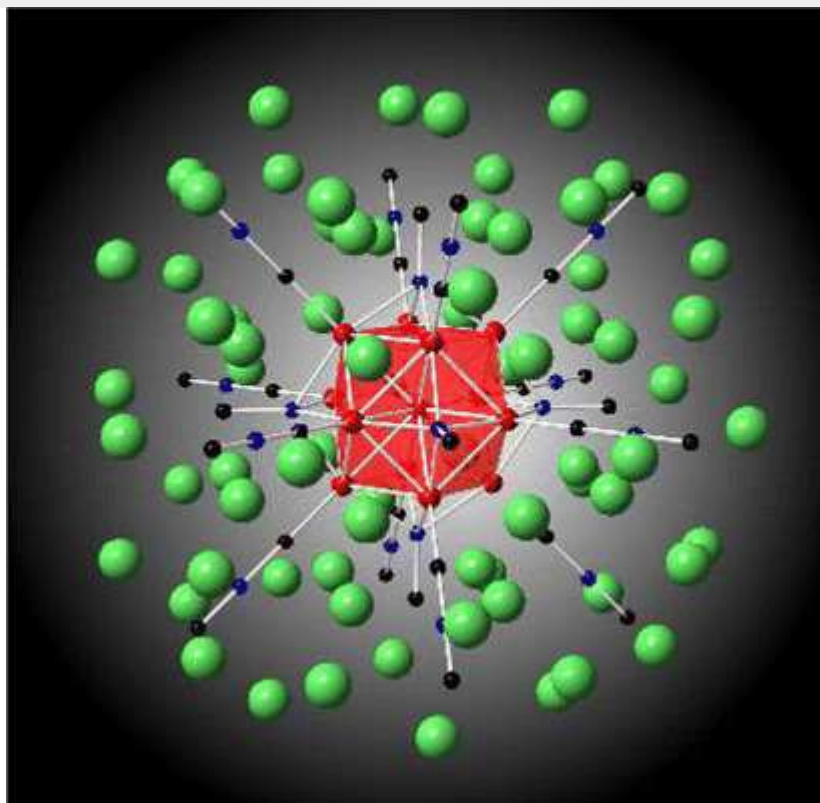
pp 12138-12148

Publication Date (Web): June 25, 2012 (Article)

DOI: 10.1021/ja303370j

CCS Section:

Inorganic Chemicals and Reactions



Copper-Catalyzed Intramolecular Alkene Carboetherification: Synthesis of Fused-Ring and Bridged-Ring Tetrahydrofurans

Yan Miller, Lei Miao, Azade S. Hosseini, and Sherry R. Chemler

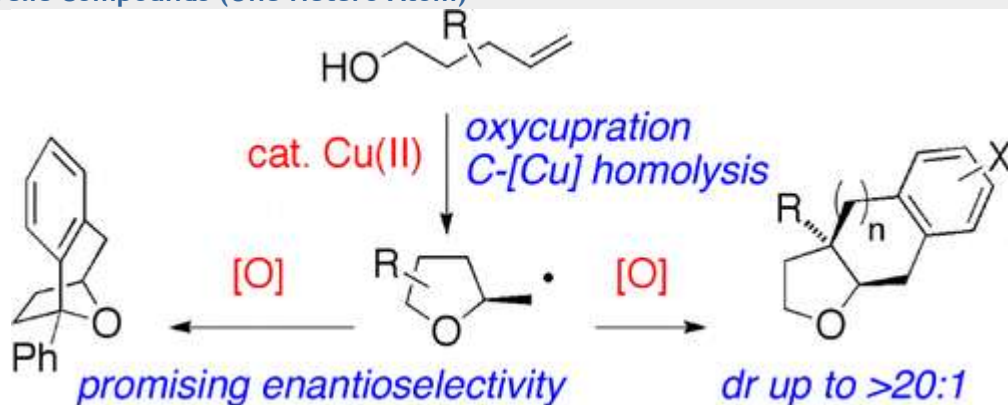
pp 12149-12156

Publication Date (Web): June 21, 2012 (Article)

DOI: 10.1021/ja3034075

CCS Section:

Heterocyclic Compounds (One Hetero Atom)



Organelle-Specific Detection of Phosphatase Activities with Two-Photon Fluorogenic Probes in Cells and Tissues

Lin Li, Jingyan Ge, Hao Wu, Qing-Hua Xu, and Shao Q. Yao

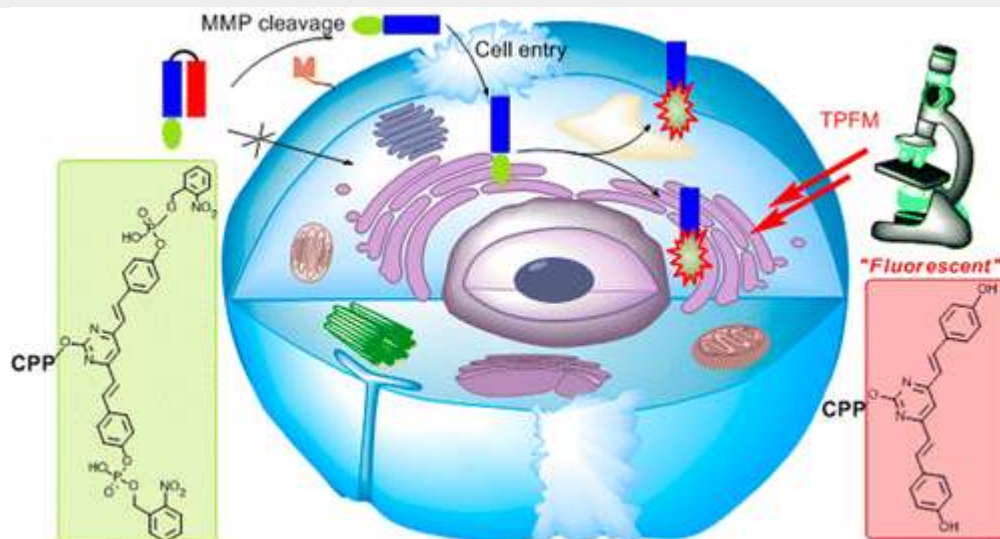
pp 12157-12167

Publication Date (Web): June 26, 2012 (Article)

DOI: 10.1021/ja3036256

CCS Section:

Enzymes



High Quality Dispersions of Hexabenzocoronene in Organic Solvents

J. Marguerite Hughes, Yenny Hernandez, Damian Aherne, Lukas Doessel, Klaus Müllen, Ben Moreton, Thomas W. White, Cerianne Partridge, Giovanni Costantini, Aleksey Shmeliov, Mervyn Shannon, Valeria Nicolosi, and Jonathan N Coleman

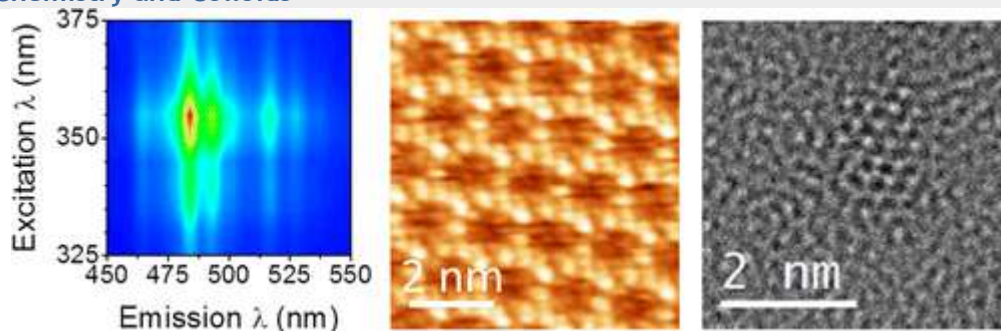
pp 12168-12179

Publication Date (Web): June 20, 2012 (Article)

DOI: 10.1021/ja303683v

CCS Section:

Surface Chemistry and Colloids



Self-Assembled Monolayers of A β peptides on Au Electrodes: An Artificial Platform for Probing the Reactivity of Redox Active Metals and Cofactors Relevant to Alzheimer's Disease

Debajyoti Pramanik, Kushal Sengupta, Soumya Mukherjee, Somdatta Ghosh Dey, and Abhishek Dey

pp 12180-12189

Publication Date (Web): June 18, 2012 (Article)

DOI: 10.1021/ja303930f

Section:

Biochemical Methods



A Paradigmatic Change: Linking Fullerenes to Electron Acceptors

Lai Feng, Marc Rudolf, Silke Wolfrum, Anna Troeger, Zdenek Slanina, Takeshi Akasaka, Shigeru Nagase, Nazario Martín, Tayebah Ameri, Christoph J. Brabec, and Dirk M. Guldi

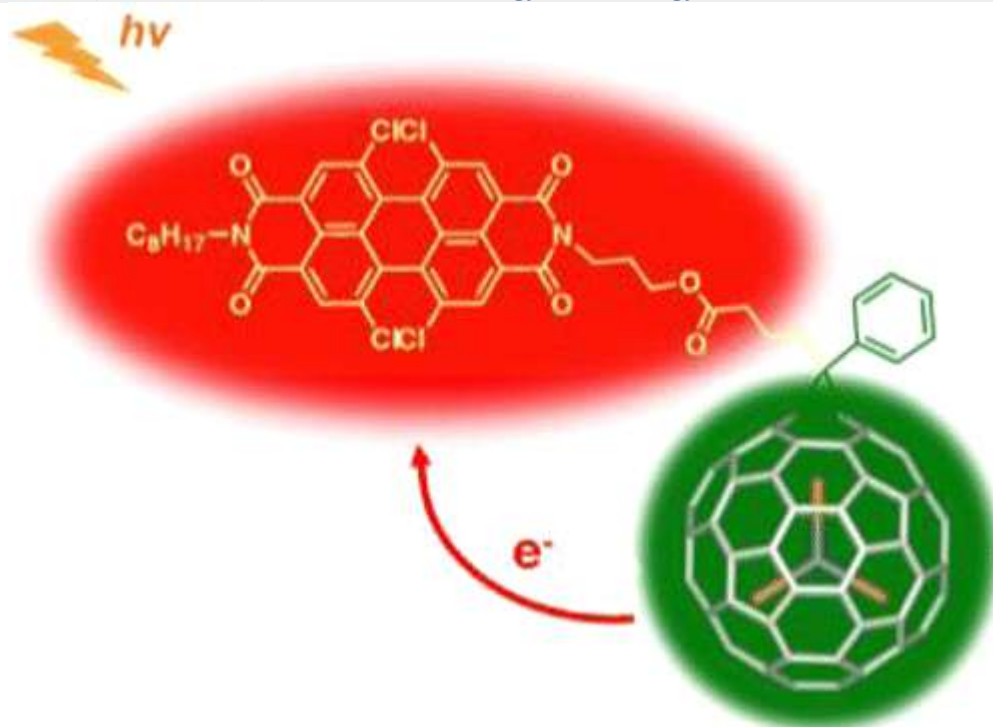
pp 12190-12197

Publication Date (Web): June 11, 2012 (Article)

DOI: 10.1021/ja3039695

Section:

Electrochemical, Radiational, and Thermal Energy Technology



Flip-Flop of Steroids in Phospholipid Bilayers: Effects of the Chemical Structure on Transbilayer Diffusion

Giulia Parisio, Maria Maddalena Sperotto, and Alberta Ferrarini

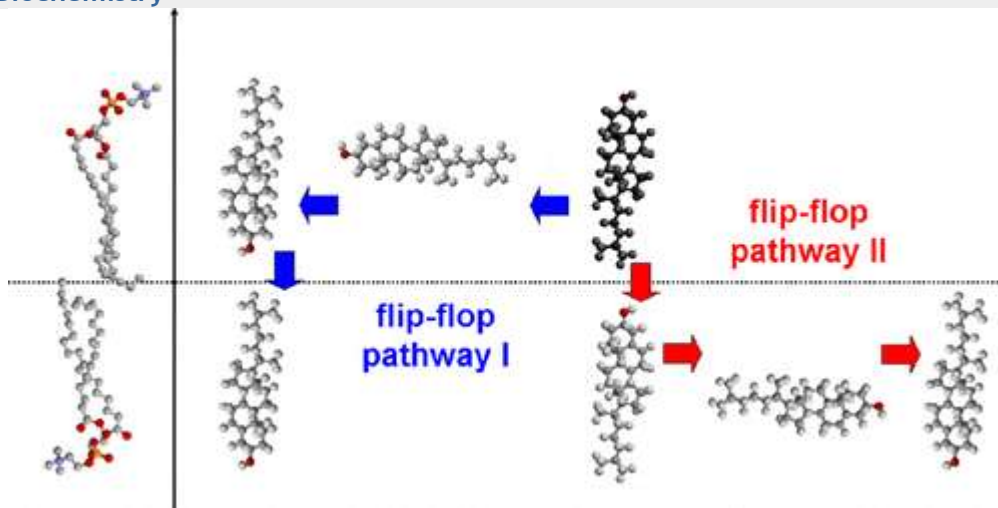
pp 12198-12208

Publication Date (Web): June 27, 2012 (Article)

DOI: 10.1021/ja304007t

Section:

General Biochemistry



Chemical Rescue of the Distal Histidine Mutants of Tryptophan 2,3-Dioxygenase

Jiafeng Geng, Kednerlin Dornevil, and Aimin Liu

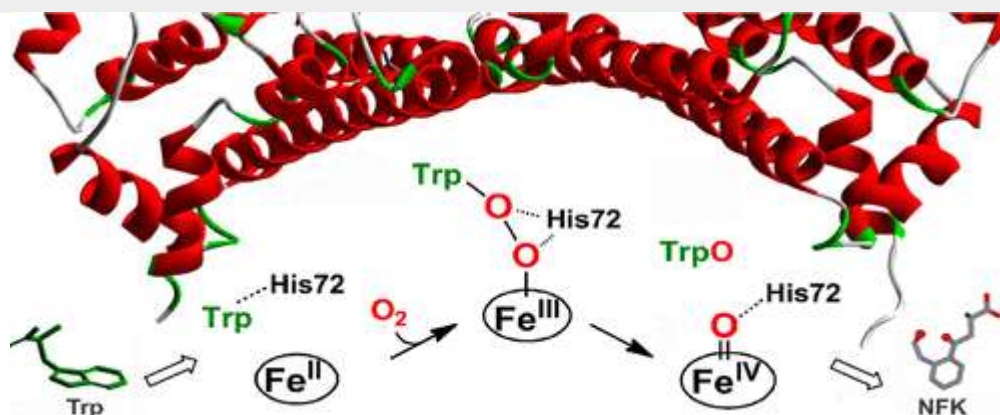
pp 12209-12218

Publication Date (Web): June 28, 2012 (Article)

DOI: 10.1021/ja304164b

Section:

Enzymes



Evolutionary Divergence of Sedoheptulose 7-Phosphate Cyclases Leads to Several Distinct Cyclic Products

Shumpei Asamizu, Pengfei Xie, Corey J. Brumsted, Patricia M. Flatt, and Taifo Mahmud

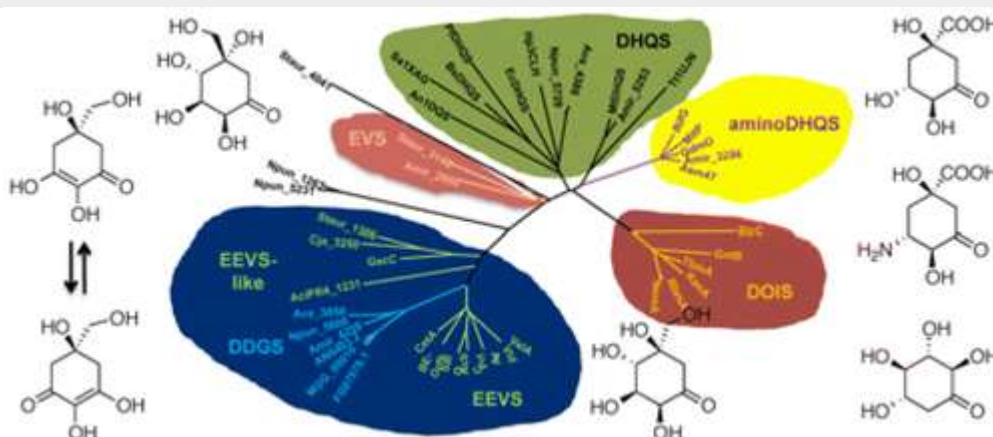
pp 12219-12229

Publication Date (Web): June 28, 2012 (Article)

DOI: 10.1021/ja3041866

Section:

Enzymes



Two-Electron Redox Chemistry at the Dinuclear Core of a TePt Platform: Chlorine Photoreductive Elimination and Isolation of a Te^VPt^I Complex

Tzu-Pin Lin and François P. Gabbaï

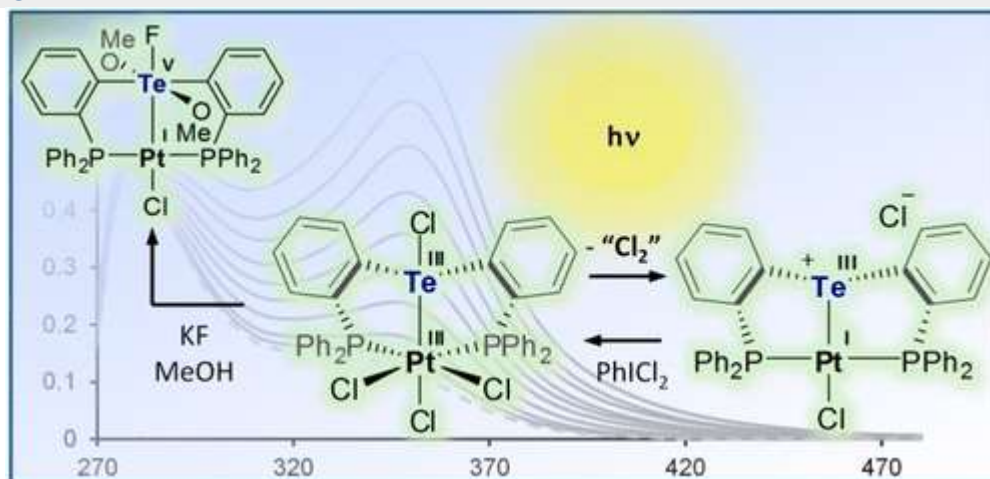
pp 12230-12238

Publication Date (Web): June 18, 2012 (Article)

DOI: 10.1021/ja3046074

Section:

Inorganic Chemicals and Reactions



Ruthenium-Catalyzed Selective α,β -Deuteration of Bioactive Amines

Lorenz Neubert, Dirk Michalik, Sebastian Bähn, Sebastian Imm, Helfried Neumann, Jens Atzrodt, Volker Derdau, Wolfgang Holla, and Matthias Beller

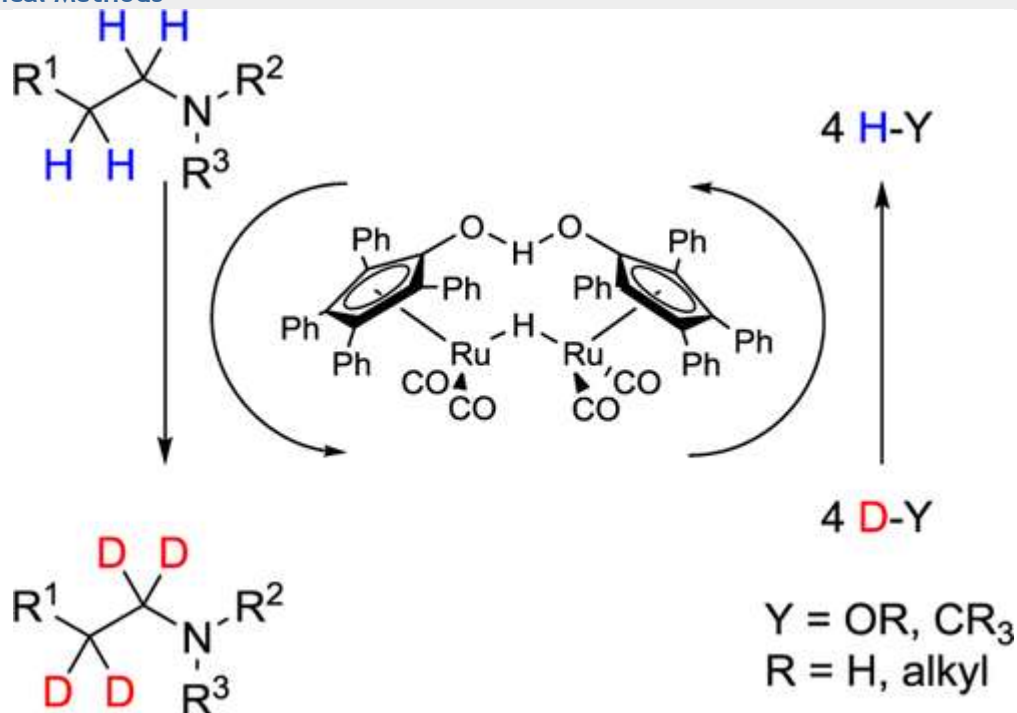
pp 12239-12244

Publication Date (Web): June 15, 2012 (Article)

DOI: 10.1021/ja3041338

Section:

Biochemical Methods



Relationship between Tribology and Optics in Thin Films of Mechanically Oriented Nanocrystals

Liana Wong, Chunhua Hu, Ruthanne Paradise, Zina Zhu, Alexander Shtukenberg, and Bart Kahr

pp 12245-12251

Publication Date (Web): June 26, 2012 (Article)

DOI: 10.1021/ja304799a

CCS Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties



Ionic N–B–N- and B–N–B-Substituted Benzene Analogues: A Theoretical Analysis

Khalid AlKaabi, Prasad L. V. K. Dasari, and Roald Hoffmann

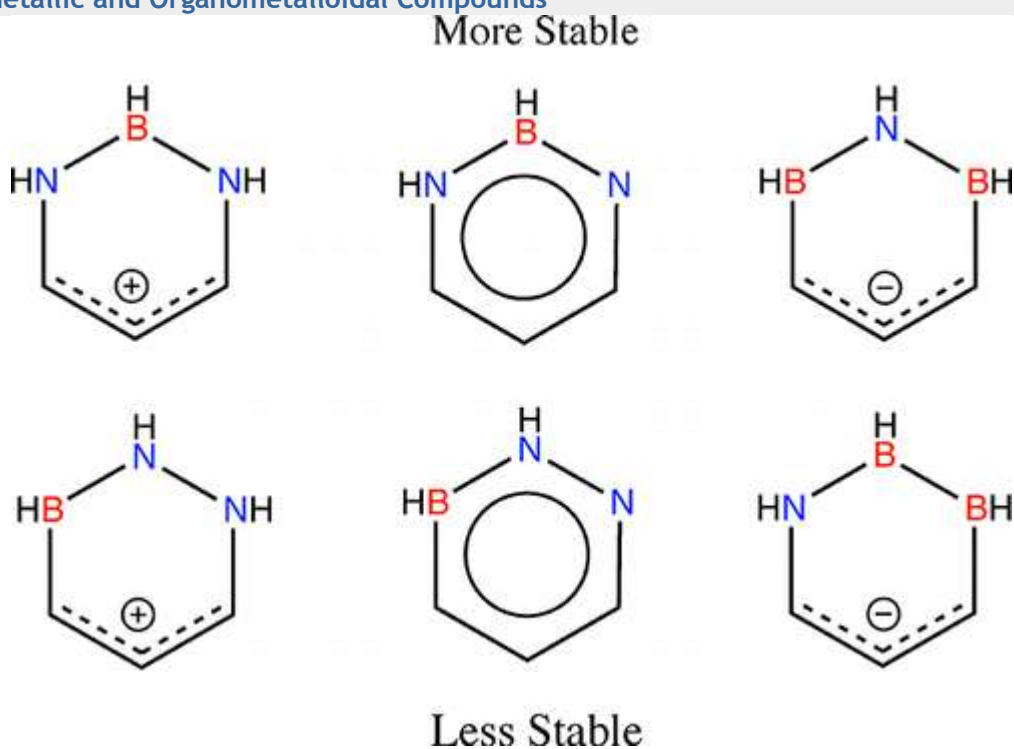
pp 12252-12258

Publication Date (Web): June 27, 2012 (Article)

DOI: 10.1021/ja3049354

CCS Section:

Organometallic and Organometalloidal Compounds



Precursor Directed Biosynthesis of an Orthogonally Functional Erythromycin Analogue: Selectivity in the Ribosome Macrolide Binding Pocket

Colin J. B. Harvey, Joseph D. Puglisi, Vijay S. Pande, David E. Cane, and Chaitan Khosla

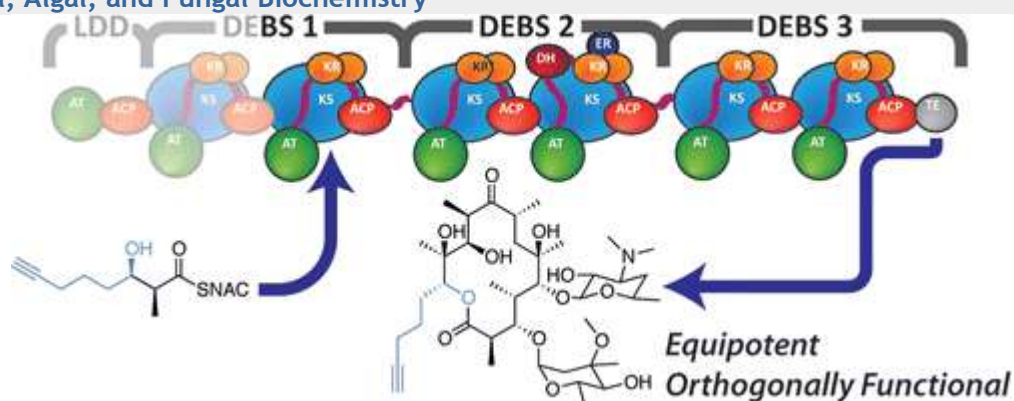
pp 12259-12265

Publication Date (Web): June 28, 2012 (Article)

DOI: 10.1021/ja304682q

Section:

Microbial, Algal, and Fungal Biochemistry



The Mechanism of Efficient Asymmetric Transfer Hydrogenation of Acetophenone Using an Iron(II) Complex Containing an (S,S)-Ph₂PCH₂CH=NCHPhCHPhN=CHCH₂PPh₂ Ligand: Partial Ligand Reduction Is the Key

Alexandre A. Mikhailine, Mazharul I. Maishan, Alan J. Lough, and Robert H. Morris

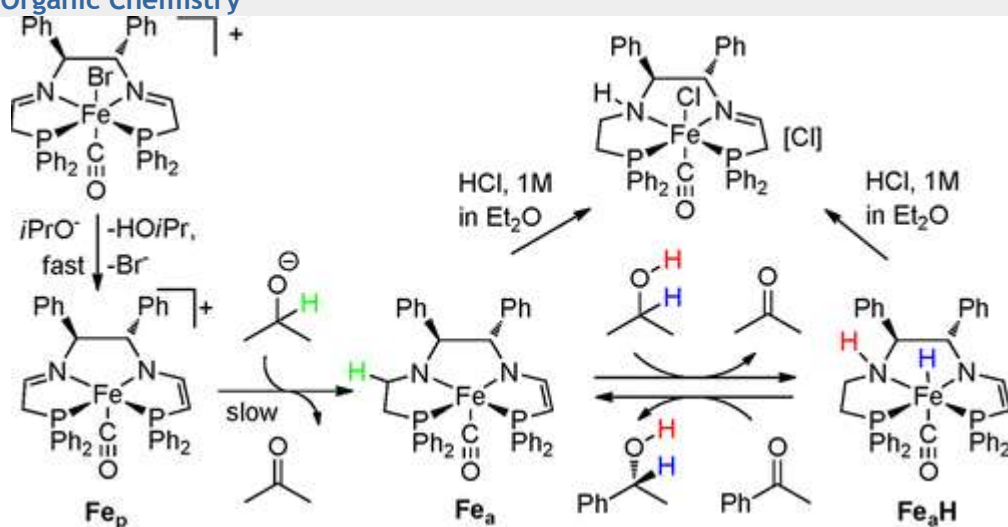
pp 12266-12280

Publication Date (Web): July 13, 2012 (Article)

DOI: 10.1021/ja304814s

Section:

Physical Organic Chemistry



Borenum Ion Catalyzed Hydroboration of Alkenes with N-Heterocyclic Carbene-Boranes

Aleksandrs Prokofjevs, Anne Boussonnière, Linfeng Li, Hélène Bonin, Emmanuel Lacôte, Dennis P. Curran, and Edwin Vedejs

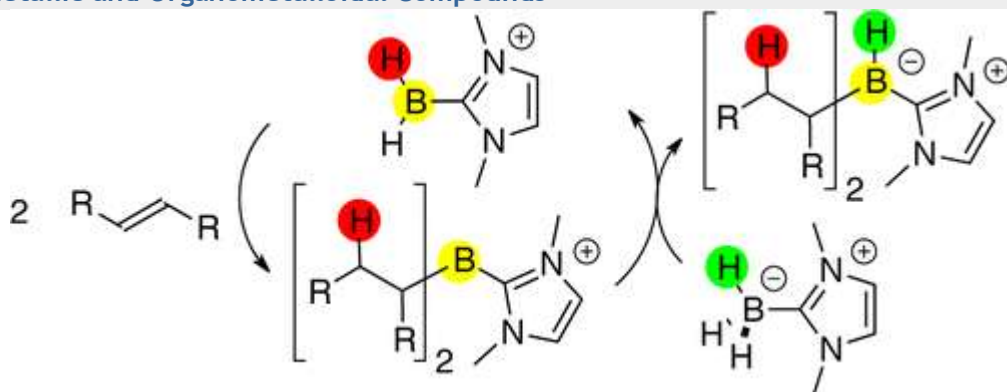
pp 12281-12288

Publication Date (Web): June 19, 2012 (Article)

DOI: 10.1021/ja305061c

Section:

Organometallic and Organometalloidal Compounds



Synthesis, Characterization, and Coupling Reactions of Six-Membered Cyclic P-Chiral Ammonium Phosphonite-Boranes; Reactive *H*-Phosphinate Equivalents for the Stereoselective Synthesis of Glycomimetics

Angélique Ferry, Xavier Guinchard, Pascal Retailleau, and David Crich

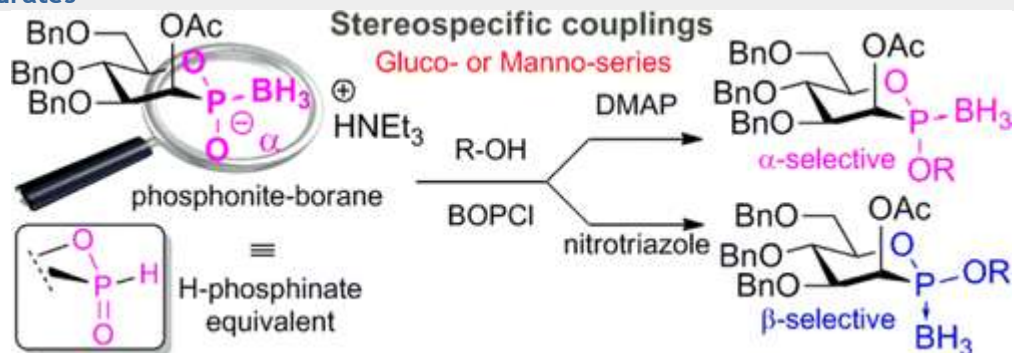
pp 12289-12301

Publication Date (Web): June 29, 2012 (Article)

DOI: 10.1021/ja305104b

Section:

Carbohydrates



Macroscopic Volume Change of Dynamic Hydrogels Induced by Reversible DNA Hybridization

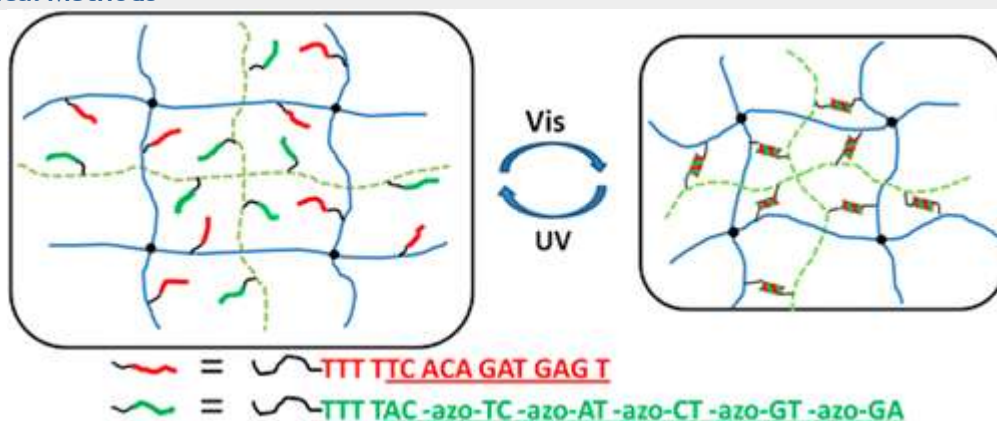
Lu Peng, Mingxu You, Quan Yuan, Cuichen Wu, Da Han, Yan Chen, Zhihua Zhong, Jiangeng Xue, and Weihong Tan

pp 12302-12307

Publication Date (Web): June 28, 2012 (Article)

DOI: 10.1021/ja305109n

CCS Section:
Biochemical Methods



Chemoenzymatic Glycoengineering of Intact IgG Antibodies for Gain of Functions

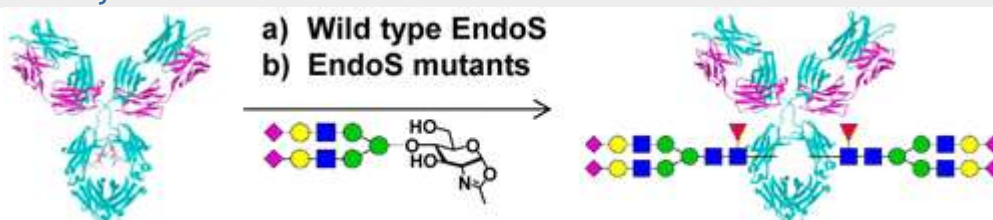
Wei Huang, John Giddens, Shu-Quan Fan, Christian Toonstra, and Lai-Xi Wang

pp 12308-12318

Publication Date (Web): July 2, 2012 (Article)

DOI: 10.1021/ja3051266

CCS Section:
Immunochemistry



ADDITIONS AND CORRECTIONS

Correction to The Mechanisms of RNA SHAPE Chemistry

Jennifer L. McGinnis, Jack A. Dunkle, Jamie H. D. Cate, and Kevin M. Weeks

pp 12319-12319

Publication Date (Web): July 16, 2012 (Addition/Correction)

DOI: 10.1021/ja306198s

Section:

General Biochemistry

Correction to Enantioselective Synthesis of *anti*- and *syn*-Homopropargyl Alcohols via Chiral Brønsted Acid Catalyzed Asymmetric Allenylboration Reactions

Ming Chen and William R. Roush

pp 12320-12320

Publication Date (Web): July 13, 2012 (Addition/Correction)

DOI: 10.1021/ja306273m

Section:

General Organic Chemistry