

## Spotlights

### Spotlights on Recent *JACS* Publications

pp 949–950

**Publication Date (Web):** January 23, 2013 (Spotlights)

**DOI:** 10.1021/ja400349a

## Communications

### Poly(3-alkyltellurophene)s Are Solution-Processable Polyheterocycles

Ashlee A. Jahnke, Brandon Djukic, Theresa M. McCormick, Ester Buchaca Domingo, Christoph Hellmann, Yunjeong Lee, and Dwight S. Seferos

pp 951–954

**Publication Date (Web):** January 3, 2013 (Communication)

**DOI:** 10.1021/ja309404j

 Section:

Chemistry of Synthetic High Polymers

### Energy Transfer from Quantum Dots to Metal–Organic Frameworks for Enhanced Light Harvesting

Shengye Jin, Ho-Jin Son, Omar K. Farha, Gary P. Wiederrecht, and Joseph T. Hupp

pp 955–958

**Publication Date (Web):** January 7, 2013 (Communication)

**DOI:** 10.1021/ja3097114

 Section:

Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes

### Two [4Fe-4S] Clusters Containing Radical SAM Enzyme SkfB Catalyze Thioether Bond Formation during the Maturation of the Sporulation Killing Factor

Leif Flühe, Olaf Burghaus, Beata M. Wieckowski, Tobias W. Giessen, Uwe Linne, and Mohamed A. Marahiel

pp 959–962

**Publication Date (Web):** January 2, 2013 (Communication)

**DOI:** 10.1021/ja310542g

 Section:

Enzymes

## **Enhancing Proton Conduction in a Metal–Organic Framework by Isomorphous Ligand Replacement**

SiRim Kim, Karl W. Dawson, Benjamin S. Gelfand, Jared M. Taylor, and George K. H. Shimizu

pp 963–966

**Publication Date (Web):** January 3, 2013 (Communication)

**DOI:** 10.1021/ja310675x

 Section:

Electric Phenomena

## **Evidence for Metal–Ligand Cooperation in a Pd–PNF Pincer-Catalyzed Cross-Coupling**

Adam Scharf, Israel Goldberg, and Arkadi Vigalok

pp 967–970

**Publication Date (Web):** December 20, 2012 (Communication)

**DOI:** 10.1021/ja310782k

 Section:

Organometallic and Organometalloidal Compounds

## **Simple Branched Sulfur–Olefins as Chiral Ligands for Rh-Catalyzed Asymmetric Arylation of Cyclic Ketimines: Highly Enantioselective Construction of Tetrasubstituted Carbon Stereocenters**

Hui Wang, Tao Jiang, and Ming-Hua Xu

pp 971–974

**Publication Date (Web):** January 8, 2013 (Communication)

**DOI:** 10.1021/ja3110818

 Section:

Amino Acids, Peptides, and Proteins

## **Anomalous High Ionic Conductivity of Nanoporous $\beta$ -Li<sub>3</sub>PS<sub>4</sub>**

Zengcai Liu, Wujun Fu, E. Andrew Payzant, Xiang Yu, Zili Wu, Nancy J. Dudney, Jim Kiggans, Kunlun Hong, Adam J. Rondinone, and Chengdu Liang

pp 975–978

**Publication Date (Web):** January 10, 2013 (Communication)

**DOI:** 10.1021/ja3110895

 Section:

Electrochemical, Radiational, and Thermal Energy Technology

## Free Energy Relationships in the Electrical Double Layer over Single-Layer Graphene

Jennifer L. Achtyl, Ivan V. Vlasiouk, Pasquale F. Fulvio, Shannon M. Mahurin, Sheng Dai, and Franz M. Geiger

pp 979–981

**Publication Date (Web):** January 8, 2013 (Communication)

**DOI:** 10.1021/ja3120899

 Section:

Surface Chemistry and Colloids

## Reactant Vibrational Excitations Are More Effective than Translational Energy in Promoting an Early-Barrier Reaction $F + H_2O \rightarrow HF + OH$

Jun Li, Bin Jiang, and Hua Guo

pp 982–985

**Publication Date (Web):** January 9, 2013 (Communication)

**DOI:** 10.1021/ja311159j

 Section:

Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms

## Origin of the Tunable Open-Circuit Voltage in Ternary Blend Bulk Heterojunction Organic Solar Cells

Robert A. Street, Daniel Davies, Petr P. Khlyabich, Beate Burkhart, and Barry C. Thompson

pp 986–989

**Publication Date (Web):** January 3, 2013 (Communication)

**DOI:** 10.1021/ja3112143

 Section:

Electrochemical, Radiational, and Thermal Energy Technology

## Anomalous Isothermic Enthalpy of Adsorption of Methane on Zeolite-Templated Carbon

Nicholas P. Stadie, Maxwell Murialdo, Channing C. Ahn, and Brent Fultz

pp 990–993

**Publication Date (Web):** December 23, 2012 (Communication)

**DOI:** 10.1021/ja311415m

 Section:

Surface Chemistry and Colloids

## Iridium-Catalyzed Enantioselective Allylic Vinylation

James Y. Hamilton, David Sarlah, and Erick M. Carreira

pp 994–997

**Publication Date (Web):** December 21, 2012 (Communication)

**DOI:** 10.1021/ja311422z

 Section:

General Organic Chemistry

## **Organized Self-Assembly of Janus Micromotors with Hydrophobic Hemispheres**

Wei Gao, Allen Pei, Xiaomiao Feng, Camille Hennessy, and Joseph Wang  
pp 998–1001

**Publication Date (Web):** January 3, 2013 (Communication)

**DOI:** 10.1021/ja311455k

 Section:

Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms

## **Rate Dispersion in the Biexciton Decay of CdSe/ZnS Nanoparticles from Multiple Population-Period Transient Spectroscopy**

Kalyanasis Sahu, Haorui Wu, and Mark A. Berg

pp 1002–1005

**Publication Date (Web):** January 3, 2013 (Communication)

**DOI:** 10.1021/ja3112109

 Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

## **Free-Radical-Mediated [2 + 2 + 1] Cycloaddition of Acetylenes, Amidines, and CO Leading to Five-Membered $\alpha,\beta$ -Unsaturated Lactams**

Takahide Fukuyama, Nao Nakashima, Takuma Okada, and Ilhyong Ryu

pp 1006–1008

**Publication Date (Web):** January 11, 2013 (Communication)

**DOI:** 10.1021/ja312654q

 Section:

Heterocyclic Compounds (One Hetero Atom)

### **Articles**

## **Single Molecule Dynamics at a Mechanically Controllable Break Junction in Solution at Room Temperature**

Tatsuya Konishi, Manabu Kiguchi, Mai Takase, Fumika Nagasawa, Hideki Nabika, Katsuyoshi Ikeda, Kohei Uosaki, Kosei Ueno, Hiroaki Misawa, and Kei Murakoshi

pp 1009–1014

**Publication Date (Web):** October 16, 2012 (Article)

DOI: 10.1021/ja307821u

 Section:

Electric Phenomena

## **On the Formation and Properties of Interstrand DNA–DNA Cross-Links Forged by Reaction of an Abasic Site with the Opposing Guanine Residue of 5'-Cap Sequences in Duplex DNA**

Kevin M. Johnson, Nathan E. Price, Jin Wang, Mostafa I. Fekry, Sanjay Dutta, Derrick R. Seiner, Yinsheng Wang, and Kent S. Gates

pp 1015–1025

**Publication Date (Web):** December 5, 2012 (Article)

DOI: 10.1021/ja308119q

 Section:

General Biochemistry

## **Concepts for Stereoselective Acrylate Insertion**

Boris Neuwald, Lucia Caporaso, Luigi Cavallo, and Stefan Mecking

pp 1026–1036

**Publication Date (Web):** December 20, 2012 (Article)

DOI: 10.1021/ja3101787

 Section:

Chemistry of Synthetic High Polymers

## **The Single Crystal X-ray Structure of $\beta$ -Hematin DMSO Solvate Grown in the Presence of Chloroquine, a $\beta$ -Hematin Growth-Rate Inhibitor**

Johandie Gildenhuis, Tanya le Roex, Timothy J. Egan, and Katherine A. de Villiers

pp 1037–1047

**Publication Date (Web):** December 19, 2012 (Article)

DOI: 10.1021/ja308741e

 Section:

Pharmacology

## **Profiling Genome-Wide Chromatin Methylation with Engineered Posttranslation Apparatus within Living Cells**

Rui Wang, Kabirul Islam, Ying Liu, Weihong Zheng, Haiping Tang, Nathalie Lailier, Gil Blum, Haiteng Deng, and Minkui Luo

pp 1048–1056

**Publication Date (Web):** December 17, 2012 (Article)

DOI: 10.1021/ja309412s

 Section:

Biochemical Genetics

## Using TiO<sub>2</sub> as a Conductive Protective Layer for Photocathodic H<sub>2</sub> Evolution

Brian Seger, Thomas Pedersen, Anders B. Laursen, Peter C. K. Vesborg, Ole Hansen, and Ib Chorkendorff  
pp 1057–1064

**Publication Date (Web):** January 4, 2013 (Article)

**DOI:** 10.1021/ja309523t

 Section:

Electrochemical, Radiational, and Thermal Energy Technology

## An Ionic Liquid Dependent Mechanism for Base Catalyzed $\beta$ -Elimination Reactions from QM/MM Simulations

Caley Allen, Somiseti V. Sambasivarao, and Orlando Acevedo  
pp 1065–1072

**Publication Date (Web):** December 31, 2012 (Article)

**DOI:** 10.1021/ja3098614

 Section:

Physical Organic Chemistry

## Oxygen Atom Transfer and Oxidative Water Incorporation in Cuboidal Mn<sub>3</sub>MO<sub>n</sub> Complexes Based on Synthetic, Isotopic Labeling, and Computational Studies

Jacob S. Kanady, Jose L. Mendoza-Cortes, Emily Y. Tsui, Robert J. Nielsen, William A. Goddard, III, and Theodor Agapie  
pp 1073–1082

**Publication Date (Web):** December 15, 2012 (Article)

**DOI:** 10.1021/ja310022p

 Section:

Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms

## Impact of Metal and Anion Substitutions on the Hydrogen Storage Properties of M-BTT Metal–Organic Frameworks

Kenji Sumida, David Stück, Lorenzo Mino, Jeng-Da Chai, Eric D. Bloch, Olena Zavorotynska, Leslie J. Murray, Mircea Dincă, Sachin Chavan, Silvia Bordiga, Martin Head-Gordon, and Jeffrey R. Long  
pp 1083–1091

**Publication Date (Web):** December 17, 2012 (Article)

**DOI:** 10.1021/ja310173e

 Section:

Electrochemical, Radiational, and Thermal Energy Technology

## Observation of a Distinct Surface Molecular Orientation in Films of a High Mobility Conjugated Polymer

Torben Schuettfort, Lars Thomsen, and Christopher R. McNeill

pp 1092–1101

**Publication Date (Web):** December 25, 2012 (Article)

**DOI:** 10.1021/ja310240q

 Section:

Physical Properties of Synthetic High Polymers

## **Six-Color Time-Resolved Förster Resonance Energy Transfer for Ultrasensitive Multiplexed Biosensing**

Daniel Geißler, Stefan Stuffer, Hans-Gerd Löhmansröben, and Niko Hildebrandt

pp 1102–1109

**Publication Date (Web):** December 11, 2012 (Article)

**DOI:** 10.1021/ja310317n

 Section:

Biochemical Methods

## **Gas-Phase Azide Functionalization of Carbon**

Eric D. Stenebjerg, Vadim R. Ziatdinov, T. Daniel P. Stack, and Christopher E. D. Chidsey

pp 1110–1116

**Publication Date (Web):** January 9, 2013 (Article)

**DOI:** 10.1021/ja310410d

 Section:

Surface Chemistry and Colloids

## **Direct and Real-Time Observation of Rotary Movement of a DNA Nanomechanical Device**

Arivazhagan Rajendran, Masayuki Endo, Kumi Hidaka, and Hiroshi Sugiyama

pp 1117–1123

**Publication Date (Web):** December 19, 2012 (Article)

**DOI:** 10.1021/ja310454k

 Section:

General Biochemistry

## **Iron L-Edge X-ray Absorption Spectroscopy of Oxy-Picket Fence Porphyrin: Experimental Insight into Fe–O<sub>2</sub> Bonding**

Samuel A. Wilson, Thomas Kroll, Richard A. Decreau, Rosalie K. Hocking, Marcus Lundberg, Britt Hedman, Keith O. Hodgson, and Edward I. Solomon

pp 1124–1136

**Publication Date (Web):** December 22, 2012 (Article)

**DOI:** 10.1021/ja3103583

 Section:

General Biochemistry

## **Dithieno[3,2-*c*:2',3'-*e*]-2,7-diketophosphepin: A Unique Building Block for Multifunctional $\pi$ -Conjugated Materials**

Xiaoming He, Javier Borau-Garcia, Alva Y. Y. Woo, Simon Trudel, and Thomas Baumgartner  
pp 1137–1147

**Publication Date (Web):** January 11, 2013 (Article)

**DOI:** 10.1021/ja310680x

 Section:

Organometallic and Organometalloidal Compounds

## **Enhanced Brightness Emission-Tuned Nanoparticles from Heterodifunctional Polyfluorene Building Blocks**

Christoph S. Fischer, Moritz C. Baier, and Stefan Mecking  
pp 1148–1154

**Publication Date (Web):** December 31, 2012 (Article)

**DOI:** 10.1021/ja311497e

 Section:

Chemistry of Synthetic High Polymers

## **Biosynthetic Multitasking Facilitates Thalassospiramide Structural Diversity in Marine Bacteria**

Avena C. Ross, Ying Xu, Liang Lu, Roland D. Kersten, Zongze Shao, Abdulaziz M. Al-Suwailem, Pieter C. Dorrestein, Pei-Yuan Qian, and Bradley S. Moore  
pp 1155–1162

**Publication Date (Web):** December 27, 2012 (Article)

**DOI:** 10.1021/ja3119674

 Section:

Microbial, Algal, and Fungal Biochemistry

### **Additions and Corrections**

## **Correction to A Biomimetic Route for Construction of the [4 + 2] and [3 + 2] Core Skeletons of Dimeric Pyrrole–Imidazole Alkaloids and Asymmetric Synthesis of Ageliferins**

Xiao Wang, Xiaolei Wang, Xianghui Tan, Jianming Lu, Kevin W. Cormier, Zhiqiang Ma, and Chuo Chen  
pp 1163–1163

**Publication Date (Web):** January 11, 2013 (Addition/Correction)

**DOI:** 10.1021/ja311681