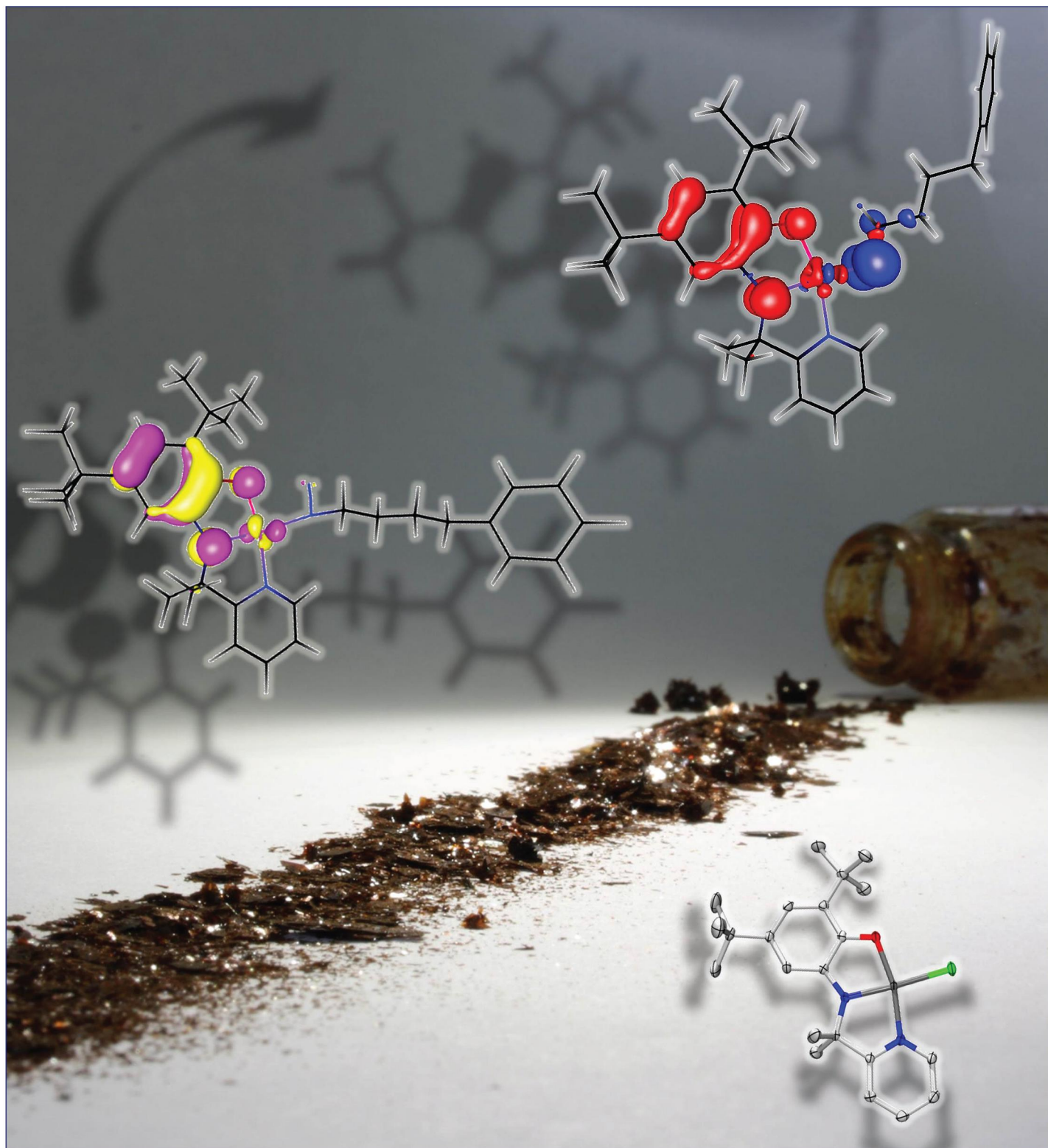


August 20, 2014
Volume 136
Number 33
pubs.acs.org/JACS

J | A | C | S

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY



ACS Publications
Most Trusted. Most Cited. Most Read.

www.acs.org

Content

1. Spotlights on Recent JACS Publications

ACS Contributing Correspondents

Journal of the American Chemical Society 2014 136 (33), 11555-11555

2. Systems Biology Brings New Dimensions for Structure-Based Drug Design

Jianfeng Pei, Ning Yin, Xiaomin Ma, and Luhua Lai

Journal of the American Chemical Society 2014 136 (33), 11556-11565

3. Metabolic Synthesis of Clickable Glutathione for Chemoselective Detection of Glutathionylation

Kusal T. G. Samarasinghe, Dhanushka N. P. Munkanatta Godage, Garrett C. VanHecke, and Young-Hoon Ahn

Journal of the American Chemical Society 2014 136 (33), 11566-11569

4. Surface Functionalization of Silica by Si–H Activation of Hydrosilanes

Nirmalya Moitra, Shun Ichii, Toshiyuki Kamei, Kazuyoshi Kanamori, Yang Zhu, Kazuyuki Takeda, Kazuki Nakanishi, and Toyoshi Shimada

Journal of the American Chemical Society 2014 136 (33), 11570-11573

5. Intramolecular Redox-Active Ligand-to-Substrate Single-Electron Transfer: Radical Reactivity with a Palladium(II) Complex

Daniël L. J. Broere, Bas de Bruin, Joost N. H. Reek, Martin Lutz, Sebastian Dechert, and Jarl Ivar van der Vlugt

Journal of the American Chemical Society 2014 136 (33), 11574-11577

6. A New Tetracyclic Lactam Building Block for Thick, Broad-Bandgap Photovoltaics

Renee Kroon, Amaia Diaz de Zerio Mendaza, Scott Himmelberger, Jonas Bergqvist, Olof Bäcke, Gregório Couto Faria, Feng Gao, Abdulmalik Obaid, Wenliu Zhuang, Desta Gedefaw, Eva Olsson, Olle Inganäs, Alberto Salleo, Christian Müller, and Mats R. Andersson

Journal of the American Chemical Society 2014 136 (33), 11578-11581

7. Tet-Mediated Formation of 5-Hydroxymethylcytosine in RNA

Lijuan Fu, Candace R. Guerrero, Na Zhong, Nicholas J. Amato, Yunhua Liu, Shuo Liu, Qian Cai, Debin Ji, Seung-Gi Jin, Laura J. Niedernhofer, Gerd P. Pfeifer, Guo-Liang Xu, and Yinsheng Wang

Journal of the American Chemical Society 2014 136 (33), 11582-11585

8. Nucleotide-Dependent Interactions within a Specialized Hsp70/Hsp40 Complex Involved in Fe–S Cluster Biogenesis

Jin Hae Kim, T. Reid Alderson, Ronnie O. Frederick, and John L. Markley

Journal of the American Chemical Society 2014 136 (33), 11586-11589

9. Cu(II)-Mediated Ortho C–H Alkynylation of (Hetero)Arenes with Terminal Alkynes

Ming Shang, Hong-Li Wang, Shang-Zheng Sun, Hui-Xiong Dai, and Jin-Quan Yu

Journal of the American Chemical Society 2014 136 (33), 11590-11593

10. Sophisticated Construction of Au Islands on Pt–Ni: An Ideal Trimetallic Nanoframe Catalyst

Yuen Wu, Dingsheng Wang, Gang Zhou, Rong Yu, Chen Chen, and Yadong Li

Journal of the American Chemical Society 2014 136 (33), 11594-11597

- 11. Palladium-Catalyzed Condensation of N-Aryl Imines and Alkynylbenziodoxolones To Form Multisubstituted Furans**
Beili Lu, Junliang Wu, and Naohiko Yoshikai
Journal of the American Chemical Society **2014** *136* (33), 11598-11601
- 12. Photoredox α -Vinylolation of α -Amino Acids and N-Aryl Amines**
Adam Noble and David W. C. MacMillan
Journal of the American Chemical Society **2014** *136* (33), 11602-11605
- 13. Multicomponent [5 + 2] Cycloaddition Reaction for the Synthesis of 1,4-Diazepines: Isolation and Reactivity of Azomethine Ylides**
Dong Jin Lee, Hong Sik Han, Jinhwan Shin, and Eun Jeong Yoo
Journal of the American Chemical Society **2014** *136* (33), 11606-11609
- 14. Photocarrier Recombination Dynamics in Perovskite CH₃NH₃PbI₃ for Solar Cell Applications**
Yasuhiro Yamada, Toru Nakamura, Masaru Endo, Atsushi Wakamiya, and Yoshihiko Kanemitsu
Journal of the American Chemical Society **2014** *136* (33), 11610-11613
- 15. Striking Effect of Intra- versus Intermolecular Hydrogen Bonding on Zwitterions: Physical and Electronic Properties**
Yonghao Zheng, Mao-sheng Miao, Yuan Zhang, Thuc-Quyen Nguyen, and Fred Wudl
Journal of the American Chemical Society **2014** *136* (33), 11614-11617
- 16. Biogenetically Inspired Total Syntheses of Lycopodium Alkaloids, (+)-Flabellidine and (-)-Lycodine**
Masayuki Azuma, Tetsuya Yoshikawa, Noriyuki Kogure, Mariko Kitajima, and Hiromitsu Takayama
Journal of the American Chemical Society **2014** *136* (33), 11618-11621
- 17. Potent and Selective Activity-Based Probes for GH27 Human Retaining α -Galactosidases**
Lianne I. Willems, Thomas J. M. Beenakker, Benjamin Murray, Saskia Scheij, Wouter W. Kallemeijn, Rolf G. Boot, Marri Verhoek, Wilma E. Donker-Koopman, Maria J. Ferraz, Erwin R. van Rijsel, Bogdan I. Florea, Jeroen D. C. Codée, Gijsbert A. van der Marel, Johannes M. F. G. Aerts, and Herman S. Overkleeft
Journal of the American Chemical Society **2014** *136* (33), 11622-11625
- 18. Superior Photoprotective Motifs and Mechanisms in Eumelanins Uncovered**
Alice Corani, Annemarie Huijser, Thomas Gustavsson, Dimitra Markovitsi, Per-Åke Malmqvist, Alessandro Pezzella, Marco d'Ischia, and Villy Sundström
Journal of the American Chemical Society **2014** *136* (33), 11626-11635
- 19. Inhibition and Mechanism of HDAC8 Revisited**
Kai Chen, Xiaoxiao Zhang, Yun-Dong Wu, and Olaf Wiest
Journal of the American Chemical Society **2014** *136* (33), 11636-11643
- 20. Synthesis and Accumulation of Aromatic Aldehydes in an Engineered Strain of *Escherichia coli***
Aditya M. Kunjapur, Yekaterina Tarasova, and Kristala L. J. Prather
Journal of the American Chemical Society **2014** *136* (33), 11644-11654
- 21. Chiral Metallohelical Complexes Enantioselectively Target Amyloid β for Treating Alzheimer's Disease**
Meng Li, Suzanne E. Howson, Kai Dong, Nan Gao, Jinsong Ren, Peter Scott, and Xiaogang Qu
Journal of the American Chemical Society **2014** *136* (33), 11655-11663

- 22. Investigating the Role of Solvent–Solute Interaction in Crystal Nucleation of Salicylic Acid from Organic Solvents**
Dikshitkumar Khamar, Jacek Zeglinski, Donal Mealey, and Åke C. Rasmuson
Journal of the American Chemical Society **2014** 136 (33), 11664-11673
- 23. Opposed Effects of Enzymatic Gliotoxin N- and S-Methylations**
Daniel H. Scharf, Andreas Habel, Thorsten Heinekamp, Axel A. Brakhage, and Christian Hertweck
Journal of the American Chemical Society **2014** 136 (33), 11674-11679
- 24. Expanding the Spectral Tunability of Plasmonic Resonances in Doped Metal-Oxide Nanocrystals through Cooperative Cation–Anion Codoping**
Xingchen Ye, Jiayang Fei, Benjamin T. Diroll, Taejong Paik, and Christopher B. Murray
Journal of the American Chemical Society **2014** 136 (33), 11680-11686
- 25. Strongly Coupled Pd Nanotetrahedron/Tungsten Oxide Nanosheet Hybrids with Enhanced Catalytic Activity and Stability as Oxygen Reduction Electrocatalysts**
Yizhong Lu, Yuanyuan Jiang, Xiaohui Gao, Xiaodan Wang, and Wei Chen
Journal of the American Chemical Society **2014** 136 (33), 11687-11697
- 26. NH₂[–] Dianion Entrapped in a Nanoporous 12CaO·7Al₂O₃ Crystal by Ammonothermal Treatment: Reaction Pathways, Dynamics, and Chemical Stability**
Fumitaka Hayashi, Yudai Tomota, Masaaki Kitano, Yoshitake Toda, Toshiharu Yokoyama, and Hideo Hosono
Journal of the American Chemical Society **2014** 136 (33), 11698-11706
- 27. Far-Red Fluorescence Probe for Monitoring Singlet Oxygen during Photodynamic Therapy**
Sooyeon Kim, Takashi Tachikawa, Mamoru Fujitsuka, and Tetsuro Majima
Journal of the American Chemical Society **2014** 136 (33), 11707-11715
- 28. Dynamic Nuclear Polarization of ¹H, ¹³C, and ⁵⁹Co in a Tris(ethylenediamine)cobalt(III) Crystalline Lattice Doped with Cr(III)**
Björn Corzilius, Vladimir K. Michaelis, Susanne A. Penzel, Enrico Ravera, Albert A. Smith, Claudio Luchinat, and Robert G. Griffin
Journal of the American Chemical Society **2014** 136 (33), 11716-11727
- 29. Molecular Imaging of Peroxynitrite with HKGreen-4 in Live Cells and Tissues**
Tao Peng, Nai-Kei Wong, Xingmiao Chen, Yee-Kwan Chan, Derek Hoi-Hang Ho, Zhenning Sun, Jun Jacob Hu, Jiangang Shen, Hani El-Nezami, and Dan Yang
Journal of the American Chemical Society **2014** 136 (33), 11728-11734
- 30. Chiral Lithium Diamides Derived from Linked N-Isopropyl Valinol or Alaninol**
Chicheung Su, Jie Guang, Weibin Li, Kuiwang Wu, Russell Hopson, and Paul G. Williard
Journal of the American Chemical Society **2014** 136 (33), 11735-11747
- 31. Combination of Small Molecule Prodrug and Nanodrug Delivery: Amphiphilic Drug–Drug Conjugate for Cancer Therapy**
Ping Huang, Dali Wang, Yue Su, Wei Huang, Yongfeng Zhou, Daxiang Cui, Xinyuan Zhu, and Deyue Yan
Journal of the American Chemical Society **2014** 136 (33), 11748-11756
- 32. Interactions of Protein Kinase C- α C1A and C1B Domains with Membranes: A Combined Computational and Experimental Study**
Jianing Li, Brian P. Ziemba, Joseph J. Falke, and Gregory A. Voth
Journal of the American Chemical Society **2014** 136 (33), 11757-11766

- 33. Identification of the Valence and Coordination Environment of the Particulate Methane Monooxygenase Copper Centers by Advanced EPR Characterization**
Megen A. Culpepper, George E. Cutsail III, William A. Gunderson, Brian M. Hoffman, and Amy C. Rosenzweig
Journal of the American Chemical Society **2014** 136 (33), 11767-11775
- 34. Surface Effects on Aggregation Kinetics of Amyloidogenic Peptides**
Robert Vácha, Sara Linse, and Mikael Lund
Journal of the American Chemical Society **2014** 136 (33), 11776-11782
- 35. Concerted Amidation of Activated Esters: Reaction Path and Origins of Selectivity in the Kinetic Resolution of Cyclic Amines via N-Heterocyclic Carbenes and Hydroxamic Acid Cocatalyzed Acyl Transfer**
Scott E. Allen, Sheng-Ying Hsieh, Osvaldo Gutierrez, Jeffrey W. Bode, and Marisa C. Kozlowski
Journal of the American Chemical Society **2014** 136 (33), 11783-11791
- 36. Adsorption of Small Hydrocarbons on the Three-Fold PdGa Surfaces: The Road to Selective Hydrogenation**
Jan Prinz, Carlo A. Pignedoli, Quirin S. Stöckl, Marc Armbrüster, Harald Brune, Oliver Gröning, Roland Widmer, and Daniele Passerone
Journal of the American Chemical Society **2014** 136 (33), 11792-11798
- 37. Rapid Synthesis of Polyprenylated Acylphloroglucinol Analogs via Dearomative Conjunctive Allylic Annulation**
Alexander J. Grenning, Jonathan H. Boyce, and John A. Porco, Jr.
Journal of the American Chemical Society **2014** 136 (33), 11799-11804
- 38. Locked ortho- and para-Core Chromophores of Green Fluorescent Protein; Dramatic Emission Enhancement via Structural Constraint**
Yen-Hao Hsu, Yi-An Chen, Huan-Wei Tseng, Zhiyun Zhang, Jiun-Yi Shen, Wei-Ti Chuang, Tzu-Chieh Lin, Chun-Shu Lee, Wen-Yi Hung, Bor-Cherng Hong, Shih-Hung Liu, and Pi-Tai Chou
Journal of the American Chemical Society **2014** 136 (33), 11805-11812
- 39. UV-Photoelectron Spectroscopy of BN Indoles: Experimental and Computational Electronic Structure Analysis**
Anna Chrostowska, Senmiao Xu, Audrey Mazière, Katherine Boknevitc, Bo Li, Eric R. Abbey, Alain Dargelos, Alain Graciaa, and Shih-Yuan Liu
Journal of the American Chemical Society **2014** 136 (33), 11813-11820
- 40. Pendant Acid–Base Groups in Molecular Catalysts: H-Bond Promoters or Proton Relays? Mechanisms of the Conversion of CO₂ to CO by Electrogenerated Iron(0)Porphyrins Bearing Prepositioned Phenol Functionalities**
Cyrille Costentin, Guillaume Passard, Marc Robert, and Jean-Michel Savéant
Journal of the American Chemical Society **2014** 136 (33), 11821-11829
- 41. Enantiomerically Pure Trinuclear Helicates via Diastereoselective Self-Assembly and Characterization of Their Redox Chemistry**
Christoph Gütz, Rainer Hovorka, Niklas Struch, Jens Bunzen, Georg Meyer-Eppler, Zheng-Wang Qu, Stefan Grimme, Filip Topić, Kari Rissanen, Mario Cetina, Marianne Engeser, and Arne Lützen
Journal of the American Chemical Society **2014** 136 (33), 11830-11838
- 42. Network Reorganization of Dynamic Covalent Polymer Gels with Exchangeable Diarylbibenzofuranone at Ambient Temperature**
Keiichi Imato, Tomoyuki Ohishi, Masamichi Nishihara, Atsushi Takahara, and Hideyuki Otsuka
Journal of the American Chemical Society **2014** 136 (33), 11839-11845

- 43. Correction to “Production of Tartrates by Cyanide-Mediated Dimerization of Glyoxylate: A Potential Abiotic Pathway to the Citric Acid Cycle”**
Christopher Butch, Elizabeth D. Cope, Pamela Pollet, Leslie Gelbaum, Ramanarayanan Krishnamurthy, and Charles L. Liotta
Journal of the American Chemical Society **2014** *136* (33), 11846-11846
- 44. Correction to “A Combined Mössbauer, Magnetic Circular Dichroism, and Density Functional Theory Approach for Iron Cross-Coupling Catalysis: Electronic Structure, In Situ Formation, and Reactivity of Iron-Mesityl-Bisphosphines”**
Stephanie L. Daifuku, Malik H. Al-Afyouni, Benjamin E. R. Snyder, Jared L. Kneebone, and Michael L. Neidig
Journal of the American Chemical Society **2014** *136* (33), 11847-11847
- 45. Correction to “Ruthenium Catalyzed Hydrohydroxyalkylation of Isoprene with Heteroaromatic Secondary Alcohols: Isolation and Reversible Formation of the Putative Metallacycle Intermediate”**
Boyoung Y. Park, T. Patrick Montgomery, Victoria J. Garza, and Michael J. Krische
Journal of the American Chemical Society **2014** *136* (33), 11848-11848
- 46. Correction to “Highly Diastereoselective Synthesis of Tetrahydropyridines by a C–H Activation–Cyclization–Reduction Cascade”**
Simon Duttwyler, Colin Lu, Arnold L. Rheingold, Robert G. Bergman, and Jonathan A. Ellman
Journal of the American Chemical Society **2014** *136* (33), 11849-11849
- 47. Retraction of “Indium-Mediated Catalytic Enantioselective Allylation of N-Benzoylhydrazones Using a Protonated Chiral Amine”**
Sung Jun Kim and Doo Ok Jang
Journal of the American Chemical Society **2014** *136* (33), 11850-11850