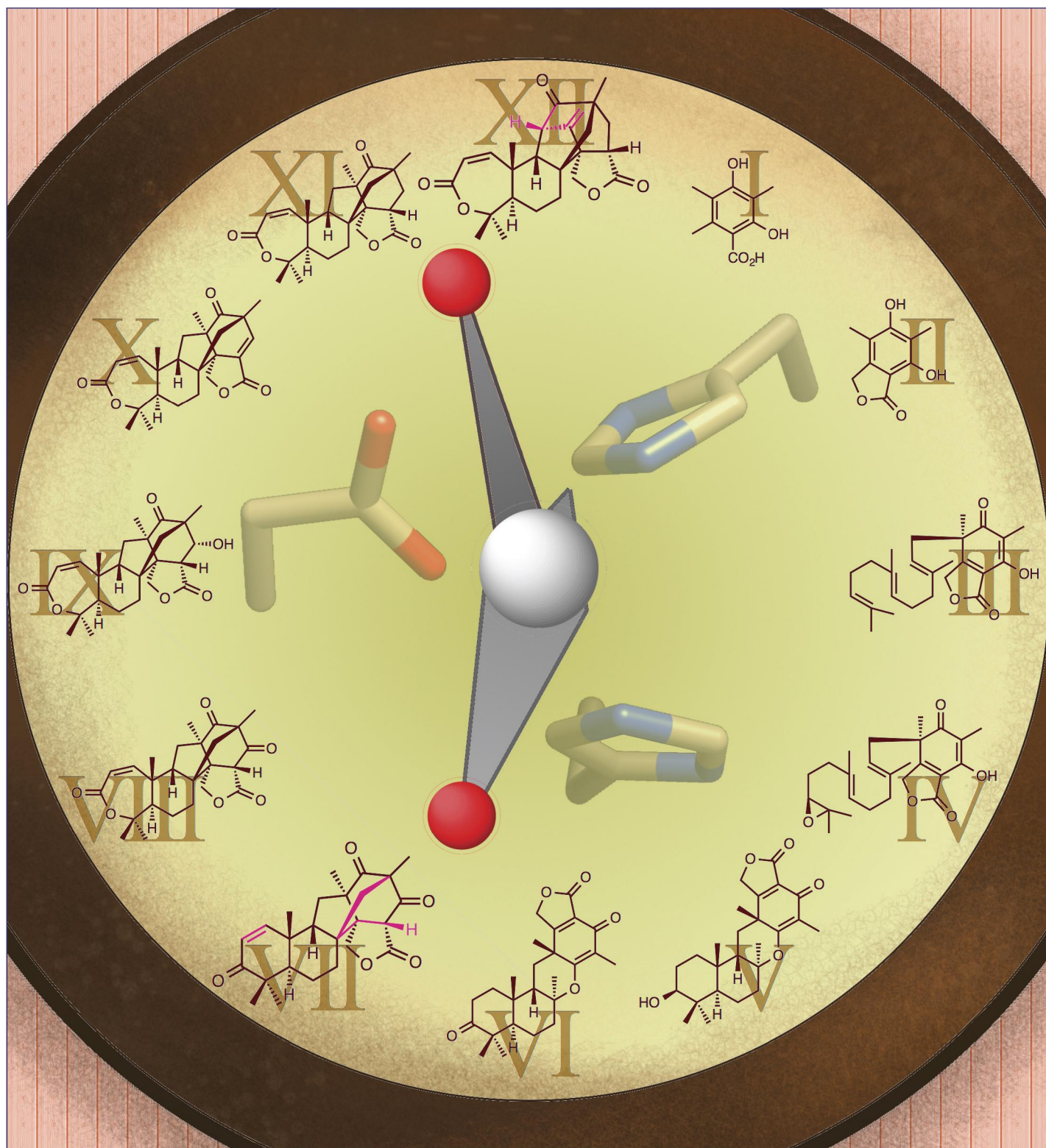


October 29, 2014
Volume 136
Number 43
pubs.acs.org/JACS

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 (43), 15109-15110

2. Why Can Hydrogen Sulfide Permeate Cell Membranes?

Saleh Riahi and Christopher N. Rowley

Journal of the American Chemical Society **2014** 136 (43), 15111-15113

3. Re-Evaluating the Surface Tension Analysis of Polyelectrolyte-Surfactant Mixtures Using Phase-Sensitive Sum Frequency Generation Spectroscopy

Dan Hu and Keng C. Chou

Journal of the American Chemical Society **2014** 136 (43), 15114-15117

4. Accessing Long-Lived Disconnected Spin-1/2 Eigenstates through Spins $> 1/2$

Kevin Claytor, Thomas Theis, Yesu Feng, Jin Yu, David Gooden, and Warren S. Warren

Journal of the American Chemical Society **2014** 136 (43), 15118-15121

5. Lanthanoid “Bottlebrush” Clusters: Remarkably Elongated Metal–Oxo Core Structures with Controllable Lengths

Daniel D'Alessio, Alexandre N. Sobolev, Brian W. Skelton, Rebecca O. Fuller, Robert C. Woodward, Nigel A. Lengkeek, Benjamin H. Fraser, Massimiliano Massi, and Mark I. Ogden

Journal of the American Chemical Society **2014** 136 (43), 15122-15125

6. Template-Directed Synthesis of Flexible Porphyrin Nanocage and Nanorings via One-Step Olefin Metathesis

Bin Zhu, Huanxin Chen, Wei Lin, Yang Ye, Jing Wu, and Shijun Li

Journal of the American Chemical Society **2014** 136 (43), 15126-15129

7. Chloride Surface Terminated Silicon Nanocrystal Mediated Synthesis of Poly(3-hexylthiophene)

Muhammad Amirul Islam, Tapas K. Purkait, and Jonathan G. C. Veinot

Journal of the American Chemical Society **2014** 136 (43), 15130-15133

8. Diatom Mimics: Directing the Formation of Biosilica Nanoparticles by Controlled Folding of Lysine-Leucine Peptides

Joe E. Baio, Ariel Zane, Vance Jaeger, Adrienne M. Roehrich, Helmut Lutz, Jim Pfaendtner, Gary P. Drobny, and Tobias Weidner

Journal of the American Chemical Society **2014** 136 (43), 15134-15137

9. Intramolecular [3 + 2] Cyclocondensations of Alkenes with Indolidenes and Indolidenium Cations

Ken S. Feldman, Inanllely Y. Gonzalez, and Christopher M. Glinkerman
Journal of the American Chemical Society **2014** 136 (43), 15138-15141

10. Enantioselective Intramolecular C–H Insertion Reactions of Donor–Donor Metal Carbenoids

Cristian Soldi, Kellan N. Lamb, Richard A. Squitieri, Marcos González-López, Michael J. Di Maso, and Jared T. Shaw
Journal of the American Chemical Society **2014** 136 (43), 15142-15145

11. Kinetic Intermediates in Amyloid Assembly

Chen Liang, Rong Ni, Jillian E. Smith, W. Seth Childers, Anil K. Mehta, and David G. Lynn
Journal of the American Chemical Society **2014** 136 (43), 15146-15149

12. Hybrid Biosynthesis of Roseobacticides from Algal and Bacterial Precursor Molecules

Mohammad R. Seyedsayamdost, Rurun Wang, Roberto Kolter, and Jon Clardy
Journal of the American Chemical Society **2014** 136 (43), 15150-15153

13. Influence of Side-Chain Regiochemistry on the Transistor Performance of High-Mobility, All-Donor Polymers

Zhuping Fei, Pichaya Pattanasattayavong, Yang Han, Bob C. Schroeder, Feng Yan, R. Joseph Kline, Thomas D. Anthopoulos, and Martin Heeney
Journal of the American Chemical Society **2014** 136 (43), 15154-15157

14. Fluoroalkylcopper(I) Complexes Generated by the Carbocupration of Tetrafluoroethylene: Construction of a Tetrafluoroethylene-Bridging Structure

Hiroki Saijo, Masato Ohashi, and Sensuke Ogoshi
Journal of the American Chemical Society **2014** 136 (43), 15158-15161

15. A Remote Stereochemical Lever Arm Effect in Polymer Mechanochemistry

Junpeng Wang, Tatiana B. Kouznetsova, Zachary S. Kean, Lin Fan, Brendan D. Mar, Todd J. Martínez, and Stephen L. Craig
Journal of the American Chemical Society **2014** 136 (43), 15162-15165

16. A Persistent Diazaheptacene Derivative

Jens U. Engelhart, Olena Tverskoy, and Uwe H. F. Bunz
Journal of the American Chemical Society **2014** 136 (43), 15166-15169

17. Conformational Changes Associated with Post-Translational Modifications of Pro143 in Skp1 of Dictyostelium—A Dipeptide Model System

Chamini V. Karunaratne, Thomas K. Weldegiorghis, Christopher M. West, and Carol M. Taylor
Journal of the American Chemical Society **2014** 136 (43), 15170-15175

18. Isomorphous Emissive GTP Surrogate Facilitates Initiation and Elongation of in Vitro Transcription Reactions

Lisa S. McCoy, Dongwon Shin, and Yitzhak Tor

Journal of the American Chemical Society **2014** 136 (43), 15176-15184

19. Transferring Biomarker into Molecular Probe: Melanin Nanoparticle as a Naturally Active Platform for Multimodality Imaging

Quli Fan, Kai Cheng, Xiang Hu, Xiaowei Ma, Ruiping Zhang, Min Yang, Xiaomei Lu, Lei Xing, Wei Huang, Sanjiv Sam Gambhir, and Zhen Cheng

Journal of the American Chemical Society **2014** 136 (43), 15185-15194

20. DNA Sequence-Dependent Morphological Evolution of Silver Nanoparticles and Their Optical and Hybridization Properties

Jiangjiexing Wu, Li Huey Tan, Kevin Hwang, Hang Xing, Peiwen Wu, Wei Li, and Yi Lu

Journal of the American Chemical Society **2014** 136 (43), 15195-15202

21. Phenylnitrene, Phenylcarbene, and Pyridylcarbenes. Rearrangements to Cyanocyclopentadiene and Fulvenallene

David Kvaskoff, Holger Lüerssen, Pawel Bednarek, and Curt Wentrup

Journal of the American Chemical Society **2014** 136 (43), 15203-15214

22. Efficient Organic Solar Cells with Helical Perylene Diimide Electron Acceptors

Yu Zhong, M. Tuan Trinh, Rongsheng Chen, Wei Wang, Petr P. Khlyabich, Bharat Kumar, Qizhi Xu, Chang-Yong Nam, Matthew Y. Sfeir, Charles Black, Michael L. Steigerwald, Yueh-Lin Loo, Shengxiong Xiao, Fay Ng, X.-Y. Zhu, and Colin Nuckolls

Journal of the American Chemical Society **2014** 136 (43), 15215-15221

23. Dissecting Reactions of Nonlinear Precursor Peptide Processing of the Class III Lanthipeptide Curvopeptin

Natalia A. Jungmann, Bartłomiej Krawczyk, Marcel Tietzmann, Paul Ensle, and Roderich D. Süssmuth

Journal of the American Chemical Society **2014** 136 (43), 15222-15228

24. Ionic and Covalent Stabilization of Intermediates and Transition States in Catalysis by Solid Acids

Prashant Deshlahra, Robert T. Carr, and Enrique Iglesia

Journal of the American Chemical Society **2014** 136 (43), 15229-15247

25. Design and Synthesis of Epicocconone Analogues with Improved Fluorescence Properties

Philippe A. Peixoto, Agathe Boulangé, Malcolm Ball, Bertrand Naudin, Thibault Alle, Pascal Cosette, Peter Karuso, and Xavier Franck

Journal of the American Chemical Society **2014** 136 (43), 15248-15256

26. High-Throughput 3D Cell Invasion Chip Enables Accurate Cancer Metastatic Assays

Yuanqing Zhang, Ledu Zhou, and Lidong Qin

Journal of the American Chemical Society **2014** 136 (43), 15257-15262

27. Selectivity and Isotope Effects in Hydronation of a Naked Aryl Anion

Charles L. Perrin and Gabriel J. Reyes-Rodríguez

Journal of the American Chemical Society **2014** 136 (43), 15263-15269

28. Bifunctional Porphyrin Catalysts for the Synthesis of Cyclic Carbonates from Epoxides and CO₂: Structural Optimization and Mechanistic Study

Tadashi Ema, Yuki Miyazaki, Junta Shimonishi, Chihiro Maeda, and Jun-ya Hasegawa

Journal of the American Chemical Society **2014** 136 (43), 15270-15279

29. Encapsulation of Metal Clusters within MFI via Interzeolite Transformations and Direct Hydrothermal Syntheses and Catalytic Consequences of Their Confinement

Sarika Goel, Stacey I. Zones, and Enrique Iglesia

Journal of the American Chemical Society **2014** 136 (43), 15280-15290

30. Room-Temperature Polar Ferromagnet ScFeO₃ Transformed from a High-Pressure Orthorhombic Perovskite Phase

Takahiro Kawamoto, Koji Fujita, Ikuya Yamada, Tomohiko Matoba, Sung Joo Kim, Peng Gao, Xiaoqing Pan, Scott D. Findlay, Cédric Tassel, Hiroshi Kageyama, Andrew J. Studer, James Hester, Tetsuo Irifune, Hirofumi Akamatsu, and Katsuhisa Tanaka

Journal of the American Chemical Society **2014** 136 (43), 15291-15299

31. Peptide-Bridged Dinuclear Ru(II) Complex for Mitochondrial Targeted Monitoring of Dynamic Changes to Oxygen Concentration and ROS Generation in Live Mammalian Cells

Aaron Martin, Aisling Byrne, Christopher S. Burke, Robert J. Forster, and Tia E. Keyes

Journal of the American Chemical Society **2014** 136 (43), 15300-15309

32. Thermodynamically Driven One-Dimensional Evolution of Anatase TiO₂ Nanorods: One-Step Hydrothermal Synthesis for Emerging Intrinsic Superiority of Dimensionality

Jiazang Chen, Hong Bin Yang, Jianwei Miao, Hsin-Yi Wang, and Bin Liu

Journal of the American Chemical Society **2014** 136 (43), 15310-15318

33. Clickable Protein Nanocapsules for Targeted Delivery of Recombinant p53 Protein

Muxun Zhao, Yarong Liu, Renee S. Hsieh, Nova Wang, Wanyi Tai, Kye-Il Joo, Pin Wang, Zhen Gu, and Yi Tang

Journal of the American Chemical Society **2014** 136 (43), 15319-15325

34. Complete Biosynthetic Pathway of Anditomin: Nature's Sophisticated Synthetic Route to a Complex Fungal Meroterpenoid

Yudai Matsuda, Toshiyuki Wakimoto, Takahiro Mori, Takayoshi Awakawa, and Ikuro Abe

Journal of the American Chemical Society **2014** 136 (43), 15326-15336

35. Kinetically Controlled Nucleation of Silver on Surfactant-Free Gold Seeds

Kyle D. Gilroy, Robert A. Hughes, and Svetlana Neretina

Journal of the American Chemical Society **2014** 136 (43), 15337-15345

36. Photocrystallographic Observation of Halide-Bridged Intermediates in Halogen Photoeliminations

David C. Powers, Bryce L. Anderson, Seung Jun Hwang, Tamara M. Powers, Lisa M. Pérez, Michael B. Hall, Shao-Liang Zheng, Yu-Sheng Chen, and Daniel G. Nocera

Journal of the American Chemical Society **2014** 136 (43), 15346-15355

37. Long-Range Distance Measurements in Proteins at Physiological Temperatures Using Saturation Recovery EPR Spectroscopy

Zhongyu Yang, Gonzalo Jiménez-Osés, Carlos J. López, Michael D. Bridges, K. N. Houk, and Wayne L. Hubbell

Journal of the American Chemical Society **2014** 136 (43), 15356-15365

38. Gd(III)-PyMTA Label Is Suitable for In-Cell EPR

Mian Qi, Andreas Groß, Gunnar Jeschke, Adelheid Godt, and Malte Drescher

Journal of the American Chemical Society **2014** 136 (43), 15366-15378

39. Air-Stable Molecular Semiconducting Iodosalts for Solar Cell Applications: Cs₂SnI₆ as a Hole Conductor

Byunghong Lee, Constantinos C. Stoumpos, Nanjia Zhou, Feng Hao, Christos Malliakas, Chen-Yu Yeh, Tobin J. Marks, Mercouri G. Kanatzidis, and Robert P. H. Chang

Journal of the American Chemical Society **2014** 136 (43), 15379-15385

40. Anomalous Eu Valence State and Superconductivity in Undoped Eu₃Bi₂S₄F₄

Hui-Fei Zhai, Pan Zhang, Si-Qi Wu, Chao-Yang He, Zhang-Tu Tang, Hao Jiang, Yun-Lei Sun, Jin-Ke Bao, Israel Nowik, Israel Felner, Yue-Wu Zeng, Yu-Ke Li, Xiao-Feng Xu, Qian Tao, Zhu-An Xu, and Guang-Han Cao

Journal of the American Chemical Society **2014** 136 (43), 15386-15393

41. Investigations on the Role of Proton-Coupled Electron Transfer in Hydrogen Activation by [FeFe]-Hydrogenase

David W. Mulder, Michael W. Ratzloff, Maurizio Bruschi, Claudio Greco, Evangeline Koonce, John W. Peters, and Paul W. King

Journal of the American Chemical Society **2014** 136 (43), 15394-15402

42. Axinellamines as Broad-Spectrum Antibacterial Agents: Scalable Synthesis and Biology

Rodrigo A. Rodriguez, Danielle Barrios Steed, Yu Kawamata, Shun Su, Peter A. Smith, Tyler C. Steed, Floyd E. Romesberg, and Phil S. Baran
Journal of the American Chemical Society **2014** 136 (43), 15403-15413

43. Two BN Isosteres of Anthracene: Synthesis and Characterization

Jacob S. A. Ishibashi, Jonathan L. Marshall, Audrey Mazière, Gabriel J. Lovinger, Bo Li, Lev N. Zakharov, Alain Dargelos, Alain Graciaa, Anna Chrostowska, and Shih-Yuan Liu
Journal of the American Chemical Society **2014** 136 (43), 15414-15421

44. Peptides Displayed as High Density Brush Polymers Resist Proteolysis and Retain Bioactivity

Angela P. Blum, Jacquelin K. Kammeyer, Jian Yin, Dustin T. Crystal, Anthony M. Rush, Michael K. Gilson, and Nathan C. Gianneschi
Journal of the American Chemical Society **2014** 136 (43), 15422-15437

45. Correction to “Enantioselective 1,3-Dipolar Cycloaddition of Azomethine Imines with Propioloylpyrazoles Induced by Chiral π -Cation Catalysts”

Masahiro Hori, Akira Sakakura, and Kazuaki Ishihara
Journal of the American Chemical Society **2014** 136 (43), 15438-15438