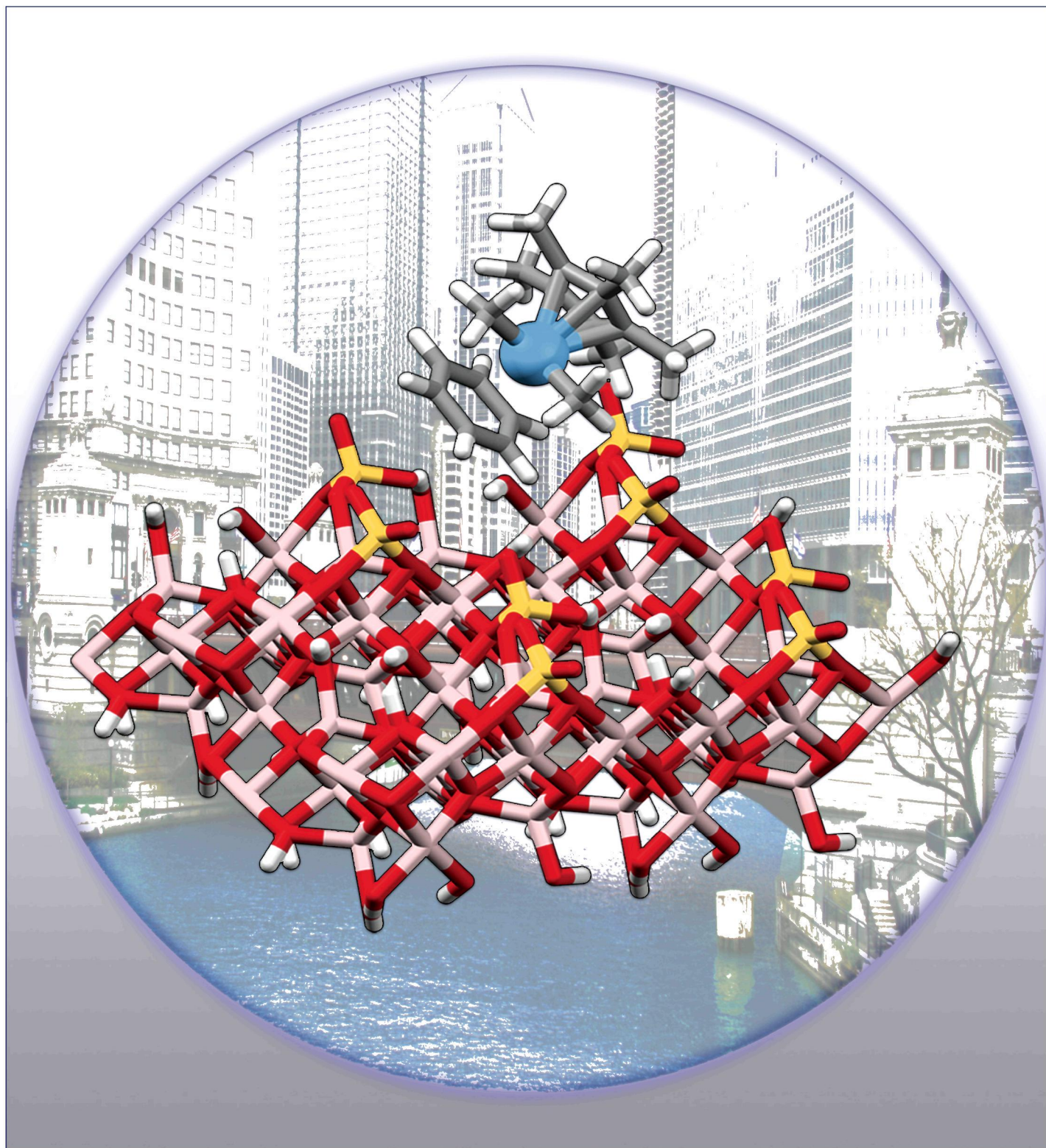


June 3, 2015
Volume 137
Number 21
pubs.acs.org/JACS

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 **2015** 137 (21), 6725-6725
 DOI: 10.1021/jacs.5b05438
- 2. Enhancing Accumulation and Penetration of HPMA Copolymer–Doxorubicin Conjugates in 2D and 3D Prostate Cancer Cells via iRGD Conjugation with an MMP-2 Cleavable Spacer**
 Zheng-Hong Peng and Jindřich Kopeček
Journal of the American Chemical Society **2015** 137 (21), 6726-6729
 DOI: 10.1021/jacs.5b00922
- 3. Low-Temperature Solution-Processed Tin Oxide as an Alternative Electron Transporting Layer for Efficient Perovskite Solar Cells**
 Weijun Ke, Guojia Fang, Qin Liu, Liangbin Xiong, Pingli Qin, Hong Tao, Jing Wang, Hongwei Lei, Borui Li, Jiawei Wan, Guang Yang, and Yanfa Yan
Journal of the American Chemical Society **2015** 137 (21), 6730-6733
 DOI: 10.1021/jacs.5b01994
- 4. Evolution of Functional Six-Nucleotide DNA**
 Liqin Zhang, Zunyi Yang, Kwame Sefah, Kevin M. Bradley, Shuichi Hoshika, Myong-Jung Kim, Hyo-Joong Kim, Guizhi Zhu, Elizabeth Jiménez, Sena Cansiz, I-Ting Teng, Carole Champanhac, Christopher McLendon, Chen Liu, Wen Zhang, Dietlind L. Gerloff, Zhen Huang, Weihong Tan, and Steven A. Benner
Journal of the American Chemical Society **2015** 137 (21), 6734-6737
 DOI: 10.1021/jacs.5b02251
- 5. Promoting Reductive Tandem Reactions of Nitrostyrenes with Mo(CO)₆ and a Palladium Catalyst To Produce 3H-Indoles**
 Navendu Jana, Fei Zhou, and Tom G. Driver
Journal of the American Chemical Society **2015** 137 (21), 6738-6741
 DOI: 10.1021/jacs.5b02946
- 6. Rhodium-Catalyzed Enantioselective Silylation of Arene C–H Bonds: Desymmetrization of Diarylmethanols**
 Taegyo Lee, Tyler W. Wilson, Robert Berg, Per Ryberg, and John F. Hartwig
Journal of the American Chemical Society **2015** 137 (21), 6742-6745
 DOI: 10.1021/jacs.5b03091
- 7. Synthesis of Chiral α -Amino Tertiary Boronic Esters by Enantioselective Hydroboration of α -Arylenamides**
 Naifu Hu, Guoqing Zhao, Yuanyuan Zhang, Xiangqian Liu, Guangyu Li, and Wenjun Tang
Journal of the American Chemical Society **2015** 137 (21), 6746-6749
 DOI: 10.1021/jacs.5b03760
- 8. Electron Delocalization in Reduced Forms of 2-(BMes₂)pyrene and 2,7-Bis(BMes₂)pyrene**
 Lei Ji, Robert M. Edkins, Andreas Lorbach, Ivo Krummenacher, Charlotte Brückner, Antonius Eichhorn, Holger Braunschweig, Bernd Engels, Paul J. Low, and Todd B. Marder
Journal of the American Chemical Society **2015** 137 (21), 6750-6753
 DOI: 10.1021/jacs.5b03805
- 9. Ipsoborylation of Aryl Ethers via Ni-Catalyzed C–OMe Cleavage**
 Cayetana Zarate, Rubén Manzano, and Ruben Martin
Journal of the American Chemical Society **2015** 137 (21), 6754-6757
 DOI: 10.1021/jacs.5b03955
- 10. Redox Non-innocent Ligand Controls Water Oxidation Overpotential in a New Family of Mononuclear Cu-Based Efficient Catalysts**

Pablo Garrido-Barros, Ignacio Funes-Ardoiz, Samuel Drouet, Jordi Benet-Buchholz, Feliu Maseras, and Antoni Llobet

Journal of the American Chemical Society **2015** 137 (21), 6758-6761

DOI: 10.1021/jacs.5b03977

11. Radical Instability in Aid of Efficiency: A Powerful Route to Highly Functional MIDA Boronates

Béatrice Quiclet-Sire and Samir Z. Zard

Journal of the American Chemical Society **2015** 137 (21), 6762-6765

DOI: 10.1021/jacs.5b03893

12. Bifunctional Organocatalysts for the Enantioselective Synthesis of Axially Chiral Isoquinoline N-Oxides

Ryota Miyaji, Keisuke Asano, and Seijiro Matsubara

Journal of the American Chemical Society **2015** 137 (21), 6766-6769

DOI: 10.1021/jacs.5b04151

13. Benzene Selectivity in Competitive Arene Hydrogenation: Effects of Single-Site Catalyst...Acidic Oxide Surface Binding Geometry

Weixing Gu, Madelyn Marie Stalzer, Christopher P. Nicholas, Alak Bhattacharyya, Alessandro Motta, James R. Gallagher, Guanghui Zhang, Jeffrey T. Miller, Takeshi Kobayashi, Marek Pruski, Massimiliano Delferro, and Tobin J. Marks

Journal of the American Chemical Society **2015** 137 (21), 6770-6780

DOI: 10.1021/jacs.5b03254

14. Two-Photon Absorbing Dyes with Minimal Autofluorescence in Tissue Imaging: Application to in Vivo Imaging of Amyloid- β Plaques with a Negligible Background Signal

Dokyoung Kim, Hyunsoo Moon, Sung Hoon Baik, Subhankar Singha, Yong Woong Jun, Taejun Wang, Ki Hean Kim, Byung Sun Park, Junyang Jung, Inhee Mook-Jung, and Kyo Han Ahn

Journal of the American Chemical Society **2015** 137 (21), 6781-6789

DOI: 10.1021/jacs.5b03548

15. Exciton Delocalization Drives Rapid Singlet Fission in Nanoparticles of Acene Derivatives

Ryan D. Pensack, Andrew J. Tilley, Sean R. Parkin, Tia S. Lee, Marcia M. Payne, Dong Gao, Ashlee A. Jahnke, Daniel G. Oblinsky, Peng-Fei Li, John E. Anthony, Dwight S. Seferos, and Gregory D. Scholes

Journal of the American Chemical Society **2015** 137 (21), 6790-6803

DOI: 10.1021/ja512668r

16. Hybrid Germanium Iodide Perovskite Semiconductors: Active Lone Pairs, Structural Distortions, Direct and Indirect Energy Gaps, and Strong Nonlinear Optical Properties

Constantinos C. Stoumpos, Laszlo Frazer, Daniel J. Clark, Yong Soo Kim, Sonny H. Rhim, Arthur J. Freeman, John B. Ketterson, Joon I. Jang, and Mercouri G. Kanatzidis

Journal of the American Chemical Society **2015** 137 (21), 6804-6819

DOI: 10.1021/jacs.5b01025

17. (2 + 2) Cycloaddition of Benzyne to Endohedral Metallofullerenes M₃N@C₈₀ (M = Sc, Y): A Rotating-Intermediate Mechanism

Tao Yang, Shigeru Nagase, Takeshi Akasaka, Josep M. Poblet, K. N. Houk, Masahiro Ehara, and Xiang Zhao

Journal of the American Chemical Society **2015** 137 (21), 6820-6828

DOI: 10.1021/jacs.5b01444

18. Electrostatic Nucleic Acid Nanoassembly Enables Hybridization Chain Reaction in Living Cells for Ultrasensitive mRNA Imaging

Zhan Wu, Gao-Qin Liu, Xiao-Li Yang, and Jian-Hui Jiang

Journal of the American Chemical Society **2015** 137 (21), 6829-6836

DOI: 10.1021/jacs.5b01778

19. Fluorescent Probe HKSOX-1 for Imaging and Detection of Endogenous Superoxide in Live Cells and In Vivo

Jun Jacob Hu, Nai-Kei Wong, Sen Ye, Xingmiao Chen, Ming-Yang Lu, Angela Qian Zhao, Yuhan Guo, Alvin Chun-Hang Ma, Anskar Yu-Hung Leung, Jiangang Shen, and Dan Yang

Journal of the American Chemical Society **2015** 137 (21), 6837-6843

DOI: 10.1021/jacs.5b01881

- 20. Old Metal Oxide Clusters in New Applications: Spontaneous Reduction of Keggin and Dawson Polyoxometalate Layers by a Metallic Electrode for Improving Efficiency in Organic Optoelectronics**
Maria Vasilopoulou, Antonios M. Douvas, Leonidas C. Palilis, Stella Kennou, and Panagiotis Argitis
Journal of the American Chemical Society **2015** 137 (21), 6844-6856
DOI: 10.1021/jacs.5b01889
- 21. Cu-Catalyzed Silylation of Alkynes: A Traceless 2-Pyridylsulfonyl Controller Allows Access to Either Regioisomer on Demand**
Alfonso García-Rubia, Jose A. Romero-Revilla, Pablo Mauleón, Ramón Gómez Arrayás, and Juan C. Carretero
Journal of the American Chemical Society **2015** 137 (21), 6857-6865
DOI: 10.1021/jacs.5b02667
- 22. Influence of Backbone Fluorination in Regioregular Poly(3-alkyl-4-fluoro)thiophenes**
Zhuping Fei, Pierre Boufflet, Sebastian Wood, Jessica Wade, John Moriarty, Eliot Gann, Erin L. Ratcliff, Christopher R. McNeill, Henning Siringhaus, Ji-Seon Kim, and Martin Heeney
Journal of the American Chemical Society **2015** 137 (21), 6866-6879
DOI: 10.1021/jacs.5b02785
- 23. Forced Unfolding of Single-Chain Polymeric Nanoparticles**
Nobuhiko Hosono, Aaron M. Kushner, Jaeyoon Chung, Anja R. A. Palmans, Zhibin Guan, and E. W. Meijer
Journal of the American Chemical Society **2015** 137 (21), 6880-6888
DOI: 10.1021/jacs.5b02967
- 24. Enlightening the Mechanism of Copper Mediated PhotoRDRP via High-Resolution Mass Spectrometry**
Elena Frick, Athina Anastasaki, David M. Haddleton, and Christopher Barner-Kowollik
Journal of the American Chemical Society **2015** 137 (21), 6889-6896
DOI: 10.1021/jacs.5b03048
- 25. Epitaxial Growth of a Single-Crystal Hybridized Boron Nitride and Graphene Layer on a Wide-Band Gap Semiconductor**
Ha-Chul Shin, Yamujin Jang, Tae-Hoon Kim, Jun-Hae Lee, Dong-Hwa Oh, Sung Joon Ahn, Jae Hyun Lee, Youngkwon Moon, Ji-Hoon Park, Sung Jong Yoo, Chong-Yun Park, Dongmok Whang, Cheol-Woong Yang, and Joung Real Ahn
Journal of the American Chemical Society **2015** 137 (21), 6897-6905
DOI: 10.1021/jacs.5b03151
- 26. Efficient Removal of Organic Ligands from Supported Nanocrystals by Fast Thermal Annealing Enables Catalytic Studies on Well-Defined Active Phases**
Matteo Cargnello, Chen Chen, Benjamin T. Diroll, Vicky V. T. Doan-Nguyen, Raymond J. Gorte, and Christopher B. Murray
Journal of the American Chemical Society **2015** 137 (21), 6906-6911
DOI: 10.1021/jacs.5b03333
- 27. Experimental Correlation of Substrate Position with Reaction Outcome in the Aliphatic Halogenase, SyrB2**
Ryan J. Martinie, Jovan Livada, Wei-chen Chang, Michael T. Green, Carsten Krebs, J. Martin Bollinger, Jr., and Alexey Silakov
Journal of the American Chemical Society **2015** 137 (21), 6912-6919
DOI: 10.1021/jacs.5b03370
- 28. Supramolecular Assembly of Isocyanorhodium(I) Complexes: An Interplay of Rhodium(I)···Rhodium(I) Interactions, Hydrophobic–Hydrophobic Interactions, and Host–Guest Chemistry**
Alan Kwun-Wa Chan, Keith Man-Chung Wong, and Vivian Wing-Wah Yam
Journal of the American Chemical Society **2015** 137 (21), 6920-6931
DOI: 10.1021/jacs.5b03396
- 29. Aldehyde Capture Ligation for Synthesis of Native Peptide Bonds**
Monika Raj, Huabin Wu, Sarah L. Blosser, Marc A. Vittoria, and Paramjit S. Arora
Journal of the American Chemical Society **2015** 137 (21), 6932-6940
DOI: 10.1021/jacs.5b03538
- 30. Rhodium-Catalyzed Endo-Selective Epoxide-Opening Cascades: Formal Synthesis of (–)-Brevisin**

Kurt W. Ambrust, Matthew G. Beaver, and Timothy F. Jamison
Journal of the American Chemical Society **2015** 137 (21), 6941-6946
DOI: 10.1021/jacs.5b03570

31. Structural Basis for a Six Nucleotide Genetic Alphabet

Millie M. Georgiadis, Isha Singh, Whitney F. Kellett, Shuichi Hoshika, Steven A. Benner, and Nigel G. J. Richards

Journal of the American Chemical Society **2015** 137 (21), 6947-6955
DOI: 10.1021/jacs.5b03482

32. Computational and Experimental Investigations of the Formal Dyotropic Rearrangements of Himbert Arene/Allene Cycloadducts

Hung V. Pham, Alexander S. Karns, Christopher D. Vanderwal, and K. N. Houk

Journal of the American Chemical Society **2015** 137 (21), 6956-6964
DOI: 10.1021/jacs.5b03718

33. In Situ Determination of Tacticity, Deactivation, and Kinetics in [rac-(C₂H₄(1-Indenyl)₂ZrMe][B(C₆F₅)₄] and [Cp₂ZrMe][B(C₆F₅)₄]-Catalyzed Polymerization of 1-Hexene Using ¹³C Hyperpolarized NMR

Chia-Hsiu Chen, Wei-Chun Shih, and Christian Hilty

Journal of the American Chemical Society **2015** 137 (21), 6965-6971
DOI: 10.1021/jacs.5b04479

34. Correction to "Improving Paclitaxel Delivery: In Vitro and In Vivo Characterization of PEGylated Polyphosphoester-Based Nanocarriers"

Fuwu Zhang, Shiyi Zhang, Stephanie F. Pollack, Richen Li, Amelia M. Gonzalez, Jingwei Fan, Jiong Zou, Sarah E. Leininger, Adriana Pavía-Sanders, Rachel Johnson, Laura D. Nelson, Jeffery E. Raymond, Mahmoud Elsabahy, Dennis M. P. Hughes, Mark W. Lenox, Tiffany P. Gustafson, and Karen L. Wooley

Journal of the American Chemical Society **2015** 137 (21), 6972-6972
DOI: 10.1021/jacs.5b04944