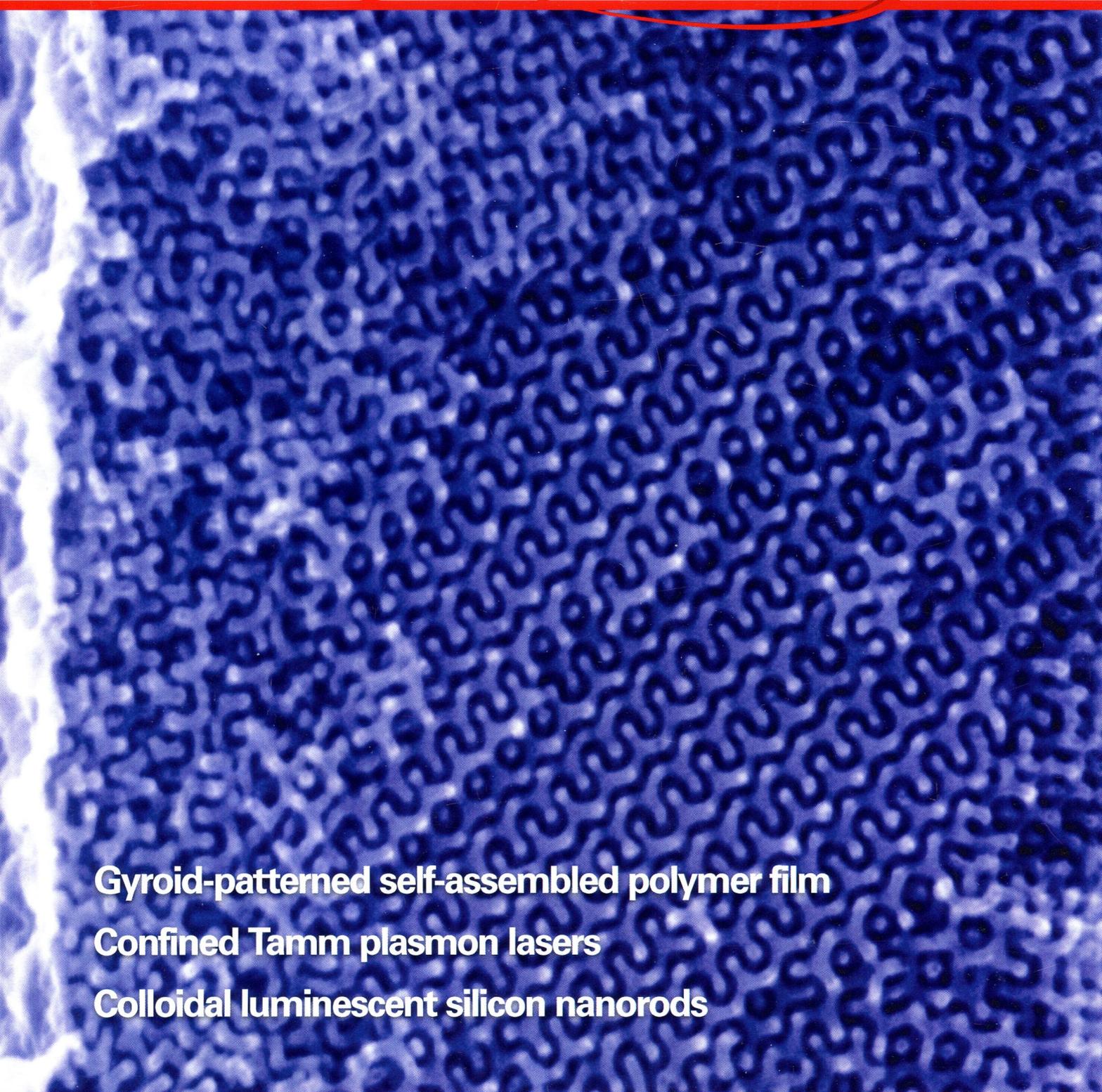


PII  
N211

# NANO LETTERS

July 2013  
Volume 13, Number 7  
[pubs.acs.org/NanoLett](http://pubs.acs.org/NanoLett)



**Gyroid-patterned self-assembled polymer film**

**Confined Tamm plasmon lasers**

**Colloidal luminescent silicon nanorods**



**ACS Publications**  
MOST TRUSTED. MOST CITED. MOST READ.

[www.acs.org](http://www.acs.org)

July 10, 2013

Volume 13, Issue 7

Pages 3005-3446

## **LETTERS**

### **Efficient Electrochromic Devices Made from 3D Nanotubular Gyroid Networks**

Maik R. J. Scherer and Ullrich Steiner

pp 3005-3010

**Publication Date (Web):** December 3, 2012 (Letter)

**DOI:** 10.1021/nl303833h

 **Section:**

**Electrochemical, Radiational, and Thermal Energy Technology**

### **$E_1(A)$ Electronic Band Gap in Wurtzite InAs Nanowires Studied by Resonant Raman Scattering**

Ilaria Zardo, Sara Yazji, Nicolas Hörmann, Simon Hertenberger, Stefan Funk, Sara Mangialardo, Stefanie Morkötter, Gregor Koblmüller, Paolo Postorino, and Gerhard Abstreiter

pp 3011-3016

**Publication Date (Web):** May 23, 2013 (Letter)

**DOI:** 10.1021/nl304528j

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

### **Tailoring n-ZnO/p-Si Branched Nanowire Heterostructures for Selective Photoelectrochemical Water Oxidation or Reduction**

Alireza Kargar, Ke Sun, Yi Jing, Chulmin Choi, Huisu Jeong, Yuchun Zhou, Kristian Madsen, Perry Naughton, Sungho Jin, Gun Young Jung, and Deli Wang

pp 3017-3022

**Publication Date (Web):** May 28, 2013 (Letter)

**DOI:** 10.1021/nl304539x

 **Section:**

**Electrochemical, Radiational, and Thermal Energy Technology**

### **Formation of a Stable $p$ - $n$ Junction in a Liquid-Gated MoS<sub>2</sub> Ambipolar Transistor**

Y. J. Zhang, J. T. Ye, Y. Yomogida, T. Takenobu, and Y. Iwasa

pp 3023-3028

**Publication Date (Web):** June 24, 2013 (Letter)

**DOI:** 10.1021/nl400902v

 **Section:**

**Electric Phenomena**

### **Mixed Polarity in Polarization-Induced $p$ - $n$ Junction Nanowire Light-Emitting Diodes**

Santino D. Carnevale, Thomas F. Kent, Patrick J. Phillips, A. T. M. G. Sarwar, Camelia Selcu, Robert F. Klie, and Roberto C. Myers

pp 3029-3035

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl400200g

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**  
**Theory of Coherent Nucleation in Phase-Separating Nanoparticles**

Daniel A. Cogswell and Martin Z. Bazant

pp 3036-3041

**Publication Date (Web):** May 2, 2013 (Letter)

**DOI:** 10.1021/nl400497t

 **Section:**

**Surface Chemistry and Colloids**  
**Hybrid III-Nitride/Organic Semiconductor Nanostructure with High Efficiency**  
**Nonradiative Energy Transfer for White Light Emitters**

R. Smith, B. Liu, J. Bai, and T. Wang

pp 3042-3047

**Publication Date (Web):** June 24, 2013 (Letter)

**DOI:** 10.1021/nl400597d

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**  
**Pressure-Controlled Motion of Single Polymers through Solid-State Nanopores**

Bo Lu, David P. Hoogerheide, Qing Zhao, Hengbin Zhang, Zhipeng Tang, Dapeng Yu, and Jene A. Golovchenko

pp 3048-3052

**Publication Date (Web):** June 26, 2013 (Letter)

**DOI:** 10.1021/nl402052v

 **Section:**

**Biochemical Methods**  
**Complete Light Annihilation in an Ultrathin Layer of Gold Nanoparticles**

Mikael Svedendahl, Peter Johansson, and Mikael Käll

pp 3053-3058

**Publication Date (Web):** June 25, 2013 (Letter)

**DOI:** 10.1021/nl400849f

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**  
**Nanoscale Obstacle Arrays Frustrate Transport of EphA2–Ephrin-A1 Clusters in**  
**Cancer Cell Lines**

Theobald Lohmüller, Qian Xu, and Jay T. Groves

pp 3059-3064

**Publication Date (Web):** May 13, 2013 (Letter)

**DOI:** 10.1021/nl400874v

 **Section:**

**Biochemical Methods**  
**Observation of Selective Plasmon-Exciton Coupling in Nonradiative Energy**  
**Transfer: Donor-Selective versus Acceptor-Selective Plexcitons**

Tuncay Ozel, Pedro Ludwig Hernandez-Martinez, Evren Mutlugun, Onur Akin, Sedat Nizamoglu, Ilkem Ozge Ozel, Qing Zhang, Qihua Xiong, and Hilmi Volkan Demir

pp 3065-3072

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl4009106



**Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Stepwise Displacement of Catalytically Active Gold Nanoparticles on Cerium Oxide**

Yasufumi Kuwauchi, Seiji Takeda, Hideto Yoshida, Keju Sun, Masatake Haruta, and Hideo Kohno

pp 3073-3077

**Publication Date (Web):** June 20, 2013 (Letter)

**DOI:** 10.1021/nl400919c



**Section:**

**Surface Chemistry and Colloids**

**Size and Composition Dependent Multiple Exciton Generation Efficiency in PbS, PbSe, and PbS<sub>x</sub>Se<sub>1-x</sub> Alloyed Quantum Dots**

Aaron G. Midgett, Joseph M. Luther, John T. Stewart, Danielle K. Smith, Lazaro A. Padilha, Victor I. Klimov, Arthur J. Nozik, and Matthew C. Beard

pp 3078-3085

**Publication Date (Web):** June 10, 2013 (Letter)

**DOI:** 10.1021/nl4009748



**Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Direct Measurement of Current-Phase Relations in Superconductor/Topological Insulator/Superconductor Junctions**

Ilya Sochnikov, Andrew J. Bestwick, James R. Williams, Thomas M. Lippman, Ian R. Fisher, David Goldhaber-Gordon, John R. Kirtley, and Kathryn A. Moler

pp 3086-3092

**Publication Date (Web):** June 24, 2013 (Letter)

**DOI:** 10.1021/nl400997k



**Section:**

**Electric Phenomena**

**Tin Anode for Sodium-Ion Batteries Using Natural Wood Fiber as a Mechanical Buffer and Electrolyte Reservoir**

Hongli Zhu, Zheng Jia, Yuchen Chen, Nicholas Weadock, Jiayu Wan, Oeyvind Vaaland, Xiaogang Han, Teng Li, and Liangbing Hu

pp 3093-3100

**Publication Date (Web):** May 29, 2013 (Letter)

**DOI:** 10.1021/nl400998t



**Section:**

**Electrochemical, Radiational, and Thermal Energy Technology**

**Colloidal Luminescent Silicon Nanorods**

Xiaotang Lu, Colin M. Hessel, Yixuan Yu, Timothy D. Bogart, and Brian A. Korgel

pp 3101-3105

**Publication Date (Web):** June 3, 2013 (Letter)

**DOI:** 10.1021/nl401802h

 **Section:**

**Electric Phenomena**

**Control of Schottky Barriers in Single Layer MoS<sub>2</sub> Transistors with Ferromagnetic Contacts**

Jen-Ru Chen, Patrick M. Odenthal, Adrian G. Swartz, George Charles Floyd, Hua Wen, Kelly Yunqiu Luo, and Roland K. Kawakami

pp 3106-3110

**Publication Date (Web):** June 7, 2013 (Letter)

**DOI:** 10.1021/nl4010157

 **Section:**

**Electric Phenomena**

**Enhanced Second Harmonic Generation by Photonic–Plasmonic Fano-Type Coupling in Nanoplasmonic Arrays**

Gary F. Walsh and Luca Dal Negro

pp 3111-3117

**Publication Date (Web):** June 25, 2013 (Letter)

**DOI:** 10.1021/nl401037n

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Strain-Induced Pseudoheterostructure Nanowires Confining Carriers at Room Temperature with Nanoscale-Tunable Band Profiles**

Donguk Nam, David S. Sukhdeo, Ju-Hyung Kang, Jan Petykiewicz, Jae Hyung Lee, Woo Shik Jung, Jelena Vučković, Mark L. Brongersma, and Krishna C. Saraswat

pp 3118-3123

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl401042n

 **Section:**

**Electric Phenomena**

**High-Performance Perovskite-Polymer Hybrid Solar Cells via Electronic Coupling with Fullerene Monolayers**

Agnese Abrusci, Samuel D. Stranks, Pablo Docampo, Hin-Lap Yip, Alex K.-Y. Jen, and Henry J. Snaith

pp 3124-3128

**Publication Date (Web):** June 17, 2013 (Letter)

**DOI:** 10.1021/nl401044q

 **Section:**

**Electrochemical, Radiational, and Thermal Energy Technology**

**Ultrafast Spinning of Gold Nanoparticles in Water Using Circularly Polarized Light**

Anni Lehmuskero, Robin Ogier, Tina Gschneidtnr, Peter Johansson, and Mikael Käll

pp 3129-3134

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl4010817

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**  
**Nickel–Cobalt Hydroxide Nanosheets Coated on NiCo<sub>2</sub>O<sub>4</sub> Nanowires Grown on Carbon Fiber Paper for High-Performance Pseudocapacitors**

Liang Huang, Dongchang Chen, Yong Ding, Shi Feng, Zhong Lin Wang, and Meilin Liu

pp 3135-3139

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl401086t

 **Section:**

**Electrochemical, Radiational, and Thermal Energy Technology**

**Tuning DNA Binding Kinetics in an Optical Trap by Plasmonic Nanoparticle Heating**

Lidiya Osinkina, S. Carretero-Palacios, Joachim Stehr, Andrey A. Lutich, Frank Jäckel, and Jochen Feldmann

pp 3140-3144

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl401101c

 **Section:**

**Biochemical Methods**

**Discrete Nanocubes as Plasmonic Reporters of Molecular Chirality**

Fang Lu, Ye Tian, Mingzhao Liu, Dong Su, Hui Zhang, Alexander O. Govorov, and Oleg Gang

pp 3145-3151

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl401107g

 **Section:**

**Biochemical Methods**

**Single Defect Center Scanning Near-Field Optical Microscopy on Graphene**

Julia Tisler, Thomas Oeckinghaus, Rainer J. Stöhr, Roman Kolesov, Rolf Reuter, Friedemann Reinhard, and Jörg Wrachtrup

pp 3152-3156

**Publication Date (Web):** June 24, 2013 (Letter)

**DOI:** 10.1021/nl401129m

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Optically-Gated Self-Calibrating Nanosensors: Monitoring pH and Metabolic Activity of Living Cells**

Hagit Peretz-Soroka, Alexander Pevzner, Guy Davidi, Vladimir Naddaka, Reuven Tirosh, Eliezer Flaxer, and Fernando Patolsky

pp 3157-3168

**Publication Date (Web):** June 17, 2013 (Letter)

**DOI:** 10.1021/nl401169k

 **Section:**

**Biochemical Methods**

**Anelastic Behavior in GaAs Semiconductor Nanowires**

Bin Chen, Qiang Gao, Yanbo Wang, Xiaozhou Liao, Yiu-Wing Mai, Hark Hoe Tan, Jin Zou, Simon P. Ringer, and Chennupati Jagadish

pp 3169-3172

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl401175t

 **Section:**

**Electric Phenomena**

**Extreme Light Absorption in Thin Semiconductor Films Wrapped around Metal Nanowires**

Sander A. Mann and Erik C. Garnett

pp 3173-3178

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl401179h

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Confined Tamm Plasmon Lasers**

C. Symonds, G. Lheureux, J. P. Hugonin, J. J. Greffet, J. Laverdant, G. Brucoli, A. Lemaitre, P. Senellart, and J. Bellessa

pp 3179-3184

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl401210b

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Engineered Nanomembranes for Directing Cellular Organization Toward Flexible Biodevices**

Toshinori Fujie, Samad Ahadian, Hao Liu, Haixin Chang, Serge Ostrovidov, Hongkai Wu, Hojae Bae, Ken Nakajima, Hirokazu Kaji, and Ali Khademhosseini

pp 3185-3192

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl401237s

 **Section:**

**Pharmaceuticals**

**Low-Bias Active Control of Terahertz Waves by Coupling Large-Area CVD Graphene to a Terahertz Metamaterial**

Federico Valmorra, Giacomo Scalari, Curdin Maissen, Wangyang Fu, Christian Schönenberger, Jong Won Choi, Hyung Gyu Park, Mattias Beck, and Jérôme Faist

pp 3193-3198

**Publication Date (Web):** June 26, 2013 (Letter)

**DOI:** 10.1021/nl4012547

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Molecular Self-Assembly on Graphene on SiO<sub>2</sub> and h-BN Substrates**

Päivi Järvinen, Sampsa K. Hämäläinen, Kaustuv Banerjee, Pasi Häkkinen, Mari Ijäs, Ari Harju, and Peter Liljeroth

pp 3199-3204

**Publication Date (Web):** June 20, 2013 (Letter)

**DOI:** 10.1021/nl401265f

 Section:

Surface Chemistry and Colloids

**Nanoscale Imaging of InN Segregation and Polymorphism in Single Vertically Aligned InGaN/GaN Multi Quantum Well Nanorods by Tip-Enhanced Raman Scattering**

E. Poliani, M. R. Wagner, J. S. Reparaz, M. Mandl, M. Strassburg, X. Kong, A. Trampert, C. M. Sotomayor Torres, A. Hoffmann, and J. Maultzsch  
pp 3205-3212

**Publication Date (Web):** June 24, 2013 (Letter)

**DOI:** 10.1021/nl401277y

 Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

**Electrical Performance and Scalability of Pt Dispersed SiO<sub>2</sub> Nanometallic Resistance Switch**

Byung Joon Choi, Antonio C. Torrezan, Kate J. Norris, Feng Miao, John Paul Strachan, Min-Xian Zhang, Douglas A. A. Ohlberg, Nobuhiko P. Kobayashi, J. Joshua Yang, and R. Stanley Williams  
pp 3213-3217

**Publication Date (Web):** June 7, 2013 (Letter)

**DOI:** 10.1021/nl401283q

 Section:

Electric Phenomena

**Nanoscale Imaging of Plasmonic Hot Spots and Dark Modes with the Photothermal-Induced Resonance Technique**

Basudev Lahiri, Glenn Holland, Vladimir Aksyuk, and Andrea Centrone  
pp 3218-3224

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl401284m

 Section:

**Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes  
Confined-but-Connected Quantum Solids via Controlled Ligand Displacement**

William J. Baumgardner, Kevin Whitham, and Tobias Hanrath  
pp 3225-3231

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl401298s

 Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

**Ultralight Three-Dimensional Boron Nitride Foam with Ultralow Permittivity and Superelasticity**

Jun Yin, Xuemei Li, Jianxin Zhou, and Wanlin Guo  
pp 3232-3236

**Publication Date (Web):** June 25, 2013 (Letter)

**DOI:** 10.1021/nl401308v

 Section:

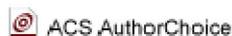
Electric Phenomena

**Electromechanical Piezoresistive Sensing in Suspended Graphene Membranes**

A. D. Smith, F. Niklaus, A. Paussa, S. Vaziri, A. C. Fischer, M. Sterner, F. Forsberg, A. Delin, D. Esseni, P. Palestri, M. Östling, and M. C. Lemme  
pp 3237-3242

**Publication Date (Web):** June 20, 2013 (Letter)

**DOI:** 10.1021/nl401352k



**ACS**Section:

**Electric Phenomena**

### **Multiplexed Plasmon Sensor for Rapid Label-Free Analyte Detection**

Christina Rosman, Janak Prasad, Andreas Neiser, Andreas Henkel, Jonathan Edgar, and Carsten Sönnichsen

pp 3243-3247

**Publication Date (Web):** June 21, 2013 (Letter)

**DOI:** 10.1021/nl401354f

**ACS**Section:

**Biochemical Methods**

### **Reconstructed Stem Cell Nanoghosts: A Natural Tumor Targeting Platform**

Naama E. Toledano Furman, Yael Lupu-Haber, Tomer Bronshtein, Limor Kaneti, Nitzan Letko, Eyal Weinstein, Limor Baruch, and Marcelle Machluf

pp 3248-3255

**Publication Date (Web):** June 20, 2013 (Letter)

**DOI:** 10.1021/nl401376w

**ACS**Section:

**Pharmaceuticals**

### **Tailorable Plasmonic Circular Dichroism Properties of Helical Nanoparticle Superstructures**

Chengyi Song, Martin G. Blaber, Gongpu Zhao, Peijun Zhang, H. Christopher Fry, George C. Schatz, and Nathaniel L. Rosi

pp 3256-3261

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl4013776

**ACS**Section:

**Biochemical Methods**

### **AC/AB Stacking Boundaries in Bilayer Graphene**

Junhao Lin, Wenjing Fang, Wu Zhou, Andrew R. Lupini, Juan Carlos Idrobo, Jing Kong, Stephen J. Pennycook, and Sokrates T. Pantelides

pp 3262-3268

**Publication Date (Web):** June 17, 2013 (Letter)

**DOI:** 10.1021/nl4013979

**ACS**Section:

**Electric Phenomena**

### **Atomic-Scale Mapping of Thermoelectric Power on Graphene: Role of Defects and Boundaries**

Jewook Park, Guowei He, R. M. Feenstra, and An-Ping Li

pp 3269-3273

**Publication Date (Web):** June 3, 2013 (Letter)

**DOI:** 10.1021/nl401473j

 **Section:**

**Electric Phenomena**

### **Self-Regulated Radius of Spontaneously Formed GaN Nanowires in Molecular Beam Epitaxy**

Sergio Fernández-Garrido, Vladimir M. Kaganer, Karl K. Sabelfeld, Tobias Gotschke, Javier Grandal, Enrique Calleja, Lutz Geelhaar, and Oliver Brandt

pp 3274-3280

**Publication Date (Web):** June 11, 2013 (Letter)

**DOI:** 10.1021/nl401483e

 **Section:**

**Electric Phenomena**

### **Near-Field Mediated Plexcitonic Coupling and Giant Rabi Splitting in Individual Metallic Dimers**

Andrea E. Schlather, Nicolas Large, Alexander S. Urban, Peter Nordlander, and Naomi J. Halas

pp 3281-3286

**Publication Date (Web):** June 7, 2013 (Letter)

**DOI:** 10.1021/nl4014887

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

### **Rational Design of Sub-Parts per Million Specific Gas Sensors Array Based on Metal Nanoparticles Decorated Nanowire Enhancement-Mode Transistors**

Xuming Zou, Jingli Wang, Xingqiang Liu, Chunlan Wang, Ying Jiang, Yong Wang, Xiangheng Xiao, Johnny C. Ho, Jinchai Li, Changzhong Jiang, Ying Fang, Wei Liu, and Lei Liao

pp 3287-3292

**Publication Date (Web):** June 24, 2013 (Letter)

**DOI:** 10.1021/nl401498t

 **Section:**

**Electric Phenomena**

### **Plasmon Nanomechanical Coupling for Nanoscale Transduction**

Rutger Thijssen, Ewold Verhagen, Tobias J. Kippenberg, and Albert Polman

pp 3293-3297

**Publication Date (Web):** June 9, 2013 (Letter)

**DOI:** 10.1021/nl4015028

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

### **Luminous Efficiency of Axial In<sub>x</sub>Ga<sub>1-x</sub>N/GaN Nanowire Heterostructures: Interplay of Polarization and Surface Potentials**

Oliver Marquardt, Christian Hauswald, Martin Wölz, Lutz Geelhaar, and Oliver Brandt

pp 3298-3304

**Publication Date (Web):** June 25, 2013 (Letter)

**DOI:** 10.1021/nl4015183

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

## **Detection of a Few Metallo-Protein Molecules Using Color Centers in Nanodiamonds**

A. Ermakova, G. Pramanik, J.-M. Cai, G. Algara-Siller, U. Kaiser, T. Weil, Y.-K. Tzeng, H. C. Chang, L. P. McGuinness, M. B. Plenio, B. Naydenov, and F. Jelezko

pp 3305-3309

**Publication Date (Web):** June 5, 2013 (Letter)

**DOI:** 10.1021/nl4015233

 **Section:**

**Biochemical Methods**

## **Restructuring Transition Metal Oxide Nanorods for 100% Selectivity in Reduction of Nitric Oxide with Carbon Monoxide**

Shiran Zhang, Junjun Shan, Yuan Zhu, Luan Nguyen, Weixin Huang, Hideto Yoshida, Seiji Takeda, and Franklin (Feng) Tao

pp 3310-3314

**Publication Date (Web):** June 3, 2013 (Letter)

**DOI:** 10.1021/nl4015292

 **Section:**

**Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms**

## **A Fullerene-Based Organic Exciton Blocking Layer with High Electron Conductivity**

Andrew N. Bartynski, Cong Trinh, Anurag Panda, Kevin Bergemann, Brian E. Lassiter, Jeramy D. Zimmerman, Stephen R. Forrest, and Mark E. Thompson

pp 3315-3320

**Publication Date (Web):** June 10, 2013 (Letter)

**DOI:** 10.1021/nl401531t

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

## **Spectroscopy of Colloidal Semiconductor Core/Shell Nanoplatelets with High Quantum Yield**

M. D. Tessier, B. Mahler, B. Nadal, H. Heuclin, S. Pedetti, and B. Dubertret

pp 3321-3328

**Publication Date (Web):** June 3, 2013 (Letter)

**DOI:** 10.1021/nl401538n

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

## **Probing Symmetry Properties of Few-Layer MoS<sub>2</sub> and h-BN by Optical Second-Harmonic Generation**

Yilei Li, Yi Rao, Kin Fai Mak, Yumeng You, Shuyuan Wang, Cory R. Dean, and Tony F. Heinz

pp 3329-3333

**Publication Date (Web):** May 29, 2013 (Letter)

**DOI:** 10.1021/nl401561r

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

## **Exchange Bias in Fe@Cr Core-Shell Nanoparticles**

Chris Binns, Muhammad T. Qureshi, Davide Peddis, Stephen H. Baker, Paul B. Howes, Adrian Boatwright, Stuart A. Cavill, Sarnjeet S. Dhesi, Leonardo Lari, Roland Kröger, and Sean Langridge  
pp 3334-3339

**Publication Date (Web):** June 7, 2013 (Letter)

**DOI:** 10.1021/nl401587t

 **Section:**

**Magnetic Phenomena**

**Facile Synthesis of Free-Standing Silicon Membranes with Three-Dimensional Nanoarchitecture for Anodes of Lithium Ion Batteries**

Fan Xia, Seong Been Kim, Huanyu Cheng, Jung Min Lee, Taeseup Song, Yonggang Huang, John A. Rogers, Ungyu Paik, and Won Il Park

pp 3340-3346

**Publication Date (Web):** June 10, 2013 (Letter)

**DOI:** 10.1021/nl401629q

 **Section:**

**Electrochemical, Radiational, and Thermal Energy Technology**

**Label-Free Detection of Single Protein Using a Nanoplasmonic-Photonic Hybrid Microcavity**

Venkata R. Dantham, Stephen Holler, Curtis Barbre, David Keng, Vasily Kolchenko, and Stephen Arnold

pp 3347-3351

**Publication Date (Web):** June 18, 2013 (Letter)

**DOI:** 10.1021/nl401633y

 **Section:**

**Biochemical Methods**

**Self-Assembly Based Plasmonic Arrays Tuned by Atomic Layer Deposition for Extreme Visible Light Absorption**

Carl Hägglund, Gabriel Zeltzer, Ricardo Ruiz, Isabell Thomann, Han-Bo-Ram Lee, Mark L. Brongersma, and Stacey F. Bent

pp 3352-3357

**Publication Date (Web):** June 27, 2013 (Letter)

**DOI:** 10.1021/nl401641v

 **Section:**

**Optical, Electron, and Mass Spectroscopy and Other Related Properties**

**Conductance of Molecular Junctions Formed with Silver Electrodes**

Taekyeong Kim, Héctor Vázquez, Mark S. Hybertsen, and Latha Venkataraman

pp 3358-3364

**Publication Date (Web):** June 3, 2013 (Letter)

**DOI:** 10.1021/nl401654s

 **Section:**

**Electric Phenomena**

**High-Performance Bioassisted Nanophotocatalyst for Hydrogen Production**

Shankar Balasubramanian, Peng Wang, Richard D. Schaller, Tijana Rajh, and Elena A. Rozhkova  
pp 3365-3371

**Publication Date (Web):** June 19, 2013 (Letter)

DOI: 10.1021/nl4016655

 Section:

**Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes  
Nanometric Protein-Patch Arrays on Glass and Polydimethylsiloxane for Cell  
Adhesion Studies**

Fuwei Pi, Pierre Dillard, Laurent Limozin, Anne Charrier, and Kheya Sengupta

pp 3372-3378

**Publication Date (Web):** June 28, 2013 (Letter)

DOI: 10.1021/nl401696m

 Section:

**Biochemical Methods**

**Atomic Calligraphy: The Direct Writing of Nanoscale Structures Using a  
Microelectromechanical System**

Matthias Imboden, Han Han, Jackson Chang, Flavio Pardo, Cristian A. Bolle, Evan Lowell, and  
David J. Bishop

pp 3379-3384

**Publication Date (Web):** June 19, 2013 (Letter)

DOI: 10.1021/nl401699w

 Section:

**Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes  
Crab Shells as Sustainable Templates from Nature for Nanostructured Battery  
Electrodes**

Hongbin Yao, Guangyuan Zheng, Weiyang Li, Matthew T. McDowell, Zhiwei Seh, Nian Liu, Zhenda  
Lu, and Yi Cui

pp 3385-3390

**Publication Date (Web):** June 11, 2013 (Letter)

DOI: 10.1021/nl401729r

 Section:

**Electrochemical, Radiational, and Thermal Energy Technology**

**Mechanical Stiffening of Porphyrin Nanorings through Supramolecular Columnar  
Stacking**

Simon A. Svatek, Luis M. A. Perdigão, Andrew Stannard, Maria B. Wieland, Dmitry V. Kondratuk,  
Harry L. Anderson, James N. O'Shea, and Peter H. Beton

pp 3391-3395

**Publication Date (Web):** June 21, 2013 (Letter)

DOI: 10.1021/nl4017557

 ACS AuthorChoice

 Section:

**Surface Chemistry and Colloids**

**Where Does the Current Flow in Two-Dimensional Layered Systems?**

Saptarshi Das and Joerg Appenzeller

pp 3396-3402

**Publication Date (Web):** June 26, 2013 (Letter)

DOI: 10.1021/nl401831u

 Section:

Electric Phenomena

### Etched Graphite with Internally Grown Si Nanowires from Pores as an Anode for High Density Li-Ion Batteries

Sookyung Jeong, Jung-Pil Lee, Minseong Ko, Guntae Kim, Soojin Park, and Jaephil Cho  
pp 3403-3407

Publication Date (Web): June 14, 2013 (Letter)

DOI: 10.1021/nl401836c

 Section:

#### Electrochemical, Radiational, and Thermal Energy Technology *Escherichia coli*-Based Biophotonic Waveguides

Hongbao Xin, Yayi Li, Xiaoshuai Liu, and Baojun Li  
pp 3408-3413

Publication Date (Web): June 21, 2013 (Letter)

DOI: 10.1021/nl401870d

 Section:

#### Biochemical Methods

### Three-Dimensional Hierarchical Ternary Nanostructures for High-Performance Li-Ion Battery Anodes

Borui Liu, Paulo Soares, Constantine Checkles, Yu Zhao, and Guihua Yu  
pp 3414-3419

Publication Date (Web): June 20, 2013 (Letter)

DOI: 10.1021/nl401880v

 Section:

#### Electrochemical, Radiational, and Thermal Energy Technology

### Synthesis and Characterization of 9 nm Pt–Ni Octahedra with a Record High Activity of 3.3 A/mg<sub>Pt</sub> for the Oxygen Reduction Reaction

Sang-Il Choi, Shuifen Xie, Minhua Shao, Jonathan H. Odell, Ning Lu, Hsin-Chieh Peng, Lesia Protsailo, Sandra Guerrero, Jinho Park, Xiaohu Xia, Jinguo Wang, Moon J. Kim, and Younan Xia  
pp 3420-3425

Publication Date (Web): June 20, 2013 (Letter)

DOI: 10.1021/nl401881z

 Section:

#### Electrochemical, Radiational, and Thermal Energy Technology

### MoSe<sub>2</sub> and WSe<sub>2</sub> Nanofilms with Vertically Aligned Molecular Layers on Curved and Rough Surfaces

Haotian Wang, Desheng Kong, Petr Johanes, Judy J. Cha, Guangyuan Zheng, Kai Yan, Nian Liu, and Yi Cui  
pp 3426-3433

Publication Date (Web): June 25, 2013 (Letter)

DOI: 10.1021/nl401944f

 Section:

#### Surface Chemistry and Colloids

### Dynamic Guiding of Motor-Driven Microtubules on Electrically Heated, Smart Polymer Tracks

Viktor Schroeder, Till Korten, Heiner Linke, Stefan Diez, and Ivan Maximov

pp 3434-3438

**Publication Date (Web):** June 10, 2013 (Letter)

**DOI:** 10.1021/nl402004s

 **Section:**

**Biochemical Methods**

**Toward Single-Layer Uniform Hexagonal Boron Nitride–Graphene Patchworks with Zigzag Linking Edges**

Yabo Gao, Yanfeng Zhang, Pengcheng Chen, Yuanchang Li, Mengxi Liu, Teng Gao, Donglin Ma, Yubin Chen, Zhihai Cheng, Xiaohui Qiu, Wenhui Duan, and Zhongfan Liu

pp 3439-3443

**Publication Date (Web):** June 12, 2013 (Letter)

**DOI:** 10.1021/nl4021123

 **Section:**

**Magnetic Phenomena**

**ADDITIONS AND CORRECTIONS**

**Correction to Detecting DNA Folding with Nanocapillaries**

Lorenz J. Steinbock, Oliver Otto, Catalin Chimerele, Joanne Gornall, and Ulrich F. Keyser

pp 3444-3444

**Publication Date (Web):** July 1, 2013 (Addition/Correction)

**DOI:** 10.1021/nl300812a

 **Section:**

**Biochemical Methods**

**Correction to Fast Translocation of Proteins through Solid State Nanopores**

Calin Plesa, Stefan W. Kowalczyk, Ruben Zinsmeister, Alexander Y. Grosberg, Yitzhak Rabin, and Cees Dekker

pp 3445-3445

**Publication Date (Web):** June 5, 2013 (Addition/Correction)

**DOI:** 10.1021/nl4019269

 **Section:**

**Biochemical Methods**