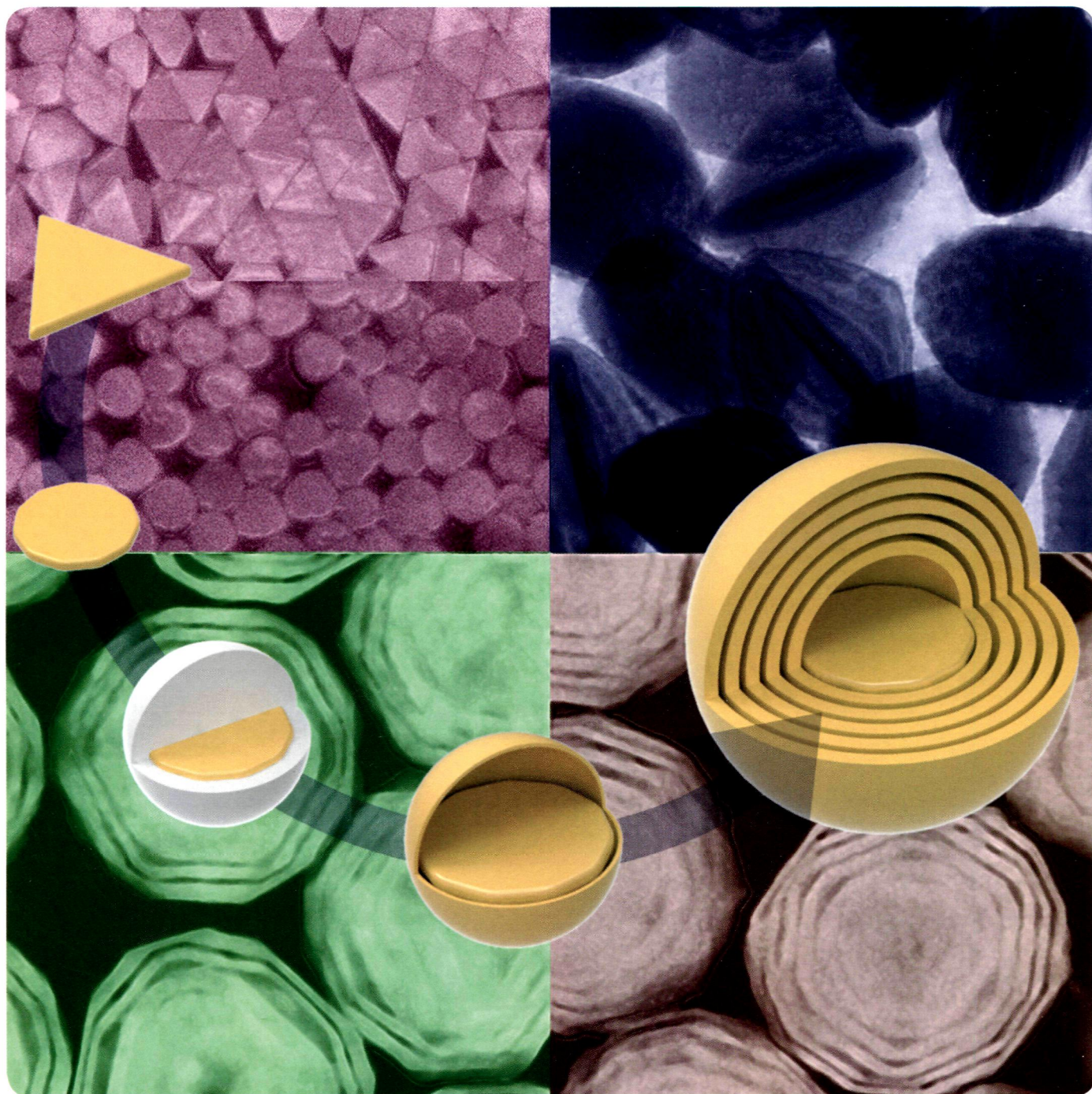


744
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ON THE COVER: Gold nanodisk-core multishell nanoparticles were synthesized using a gold nanoplate core as a seed to deposit a controlled number of surrounding gold shells followed by a galvanic replacement reaction of the pre-deposited silver shells. For more information, see "Au Nanodisk-Core Multishell Nanoparticles: Synthetic Method for Controlling Number of Shells and Intershell Distance" by Soonchang Hong, Jesus A. I. Acapulco Jr., Ho Young Jang, and Sungho Park* (*Chem. Mater.* **2014**, *26*, 3618–3623).

Editorial

3593

dx.doi.org/10.1021/cm501763w

Chemistry of Materials Celebrates the 80th Birthday of One of the Premier "Chemists of Materials"
Bhagavatula L. V. Prasad and Jillian M. Buriak*

Communications

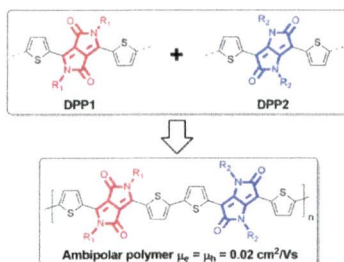
3595



dx.doi.org/10.1021/cm5017245

Combination of Two Diketopyrrolopyrrole Isomers in One Polymer for Ambipolar Transport

Xin Guo, Sreenivasa Reddy Puniredd, Bo He, Tomasz Marszalek, Martin Baumgarten, Wojciech Pisula, and Klaus Müllen*



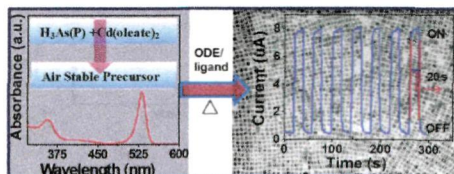
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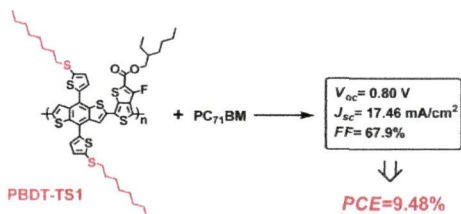
Large Scale Synthesis of Air Stable Precursors for the Preparation of High Quality Metal Arsenide and Phosphide Nanocrystals as Efficient Emitters Covering the Visible to Near Infrared Region

Dongze Li, Lucheng Peng, Zhuolei Zhang, Zhan Shi, Renguo Xie,* Ming-Yong Han, and Wensheng Yang



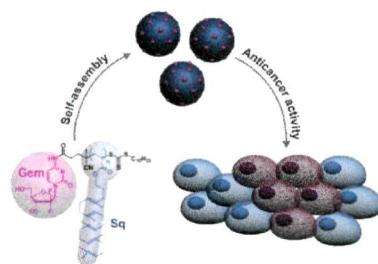
Highly Efficient 2D-Conjugated Benzodithiophene-Based Photovoltaic Polymer with Linear Alkylthio Side Chain

Long Ye, Shaoqing Zhang, Wenchao Zhao, Huifeng Yao, and Jianhui Hou*



Significant Tumor Growth Inhibition from Naturally Occurring Lipid-Containing Polymer Prodrug Nanoparticles Obtained by the Drug-Initiated Method

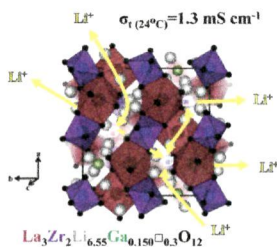
Andrei Maksimenko, Duc Trung Bui, Didier Desmaële, Patrick Couvreur, and Julien Nicolas*



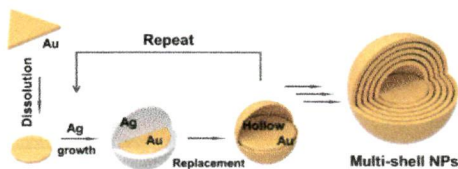
Articles

Atmosphere Controlled Processing of Ga-Substituted Garnets for High Li-Ion Conductivity Ceramics

Carlos Bernuy-Lopez,* William Manalastas Jr., Juan Miguel Lopez del Amo,* Ainara Aguadero,* Frederic Aguesse, and John A. Kilner

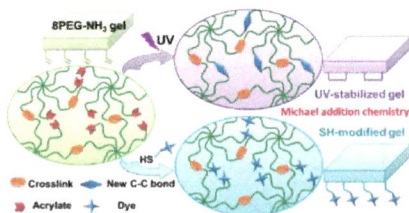


Au Nanodisk-Core Multishell Nanoparticles: Synthetic Method for Controlling Number of Shells and Intershell Distance
 Soonchang Hong, Jesus A. I. Acapulco Jr., Ho Young Jang, and Sungho Park*



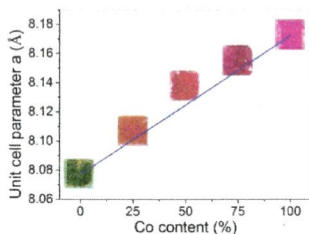
Synthesis of Poly(ethylene glycol)-based Hydrogels via Amine-Michael Type Addition with Tunable Stiffness and Postgelation Chemical Functionality

Zhenfang Zhang, Axel Loebus, Gonzalo de Vicente, Fang Ren, Manar Arafeh, Zhaofei Ouyang, and Marga C. Lensen*



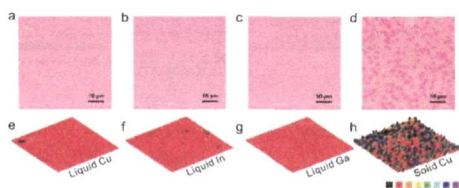
Acentric Pseudo-Kagome Structures: The Solid Solution $(\text{Co}_{1-x}\text{Ni}_x)_3\text{Sb}_4\text{O}_{16}\text{F}_6$

Shichao Hu, Mats Johansson,* Peter Lemmens, Daniel Schmid, Dirk Menzel, Joshua Tapp, and Angela Möller

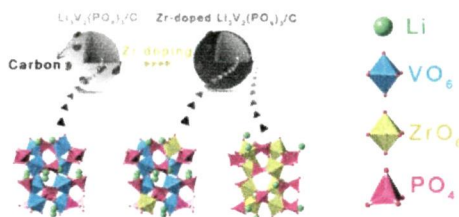


Liquid Metal: An Innovative Solution to Uniform Graphene Films

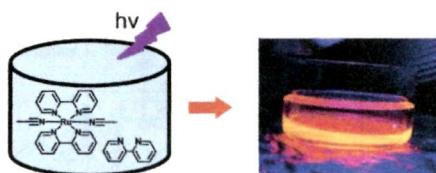
Mengqi Zeng, Lifang Tan, Jiao Wang, Linfeng Chen, Mark H. Rummeli, and Lei Fu*

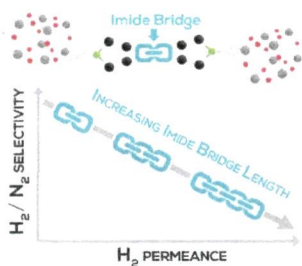
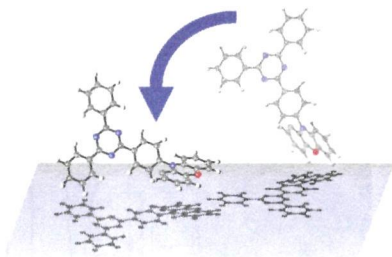
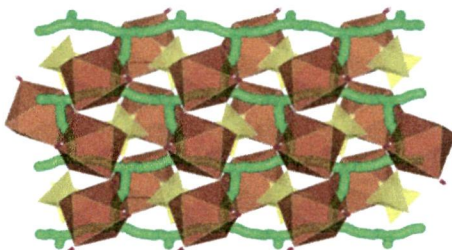
**Facile Lithium Ion Transport through Superionic Pathways Formed on the Surface of $\text{Li}_3\text{V}_2(\text{PO}_4)_3/\text{C}$ for High Power Li Ion Battery**

Dong-Wook Han, Sung-Jin Lim, Yong-Il Kim, Seung Ho Kang, Yoon Cheol Lee, and Yong-Mook Kang*

**Versatile Approach to Formation of Light-Harvesting Complexes on Nanostructured Metal Oxide Surfaces via "On-Surface" Assembly**

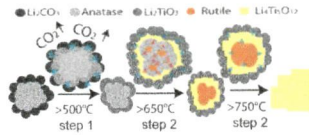
Becca A. Putans, Lee M. Bishop, and Robert J. Hamers*



Hybrid Polyhedral Oligomeric Silsesquioxanes–Imides with Tailored Intercage Spacing for Sieving of Hot Gases
Michiel J. T. Raaijmakers, Matthias Wessling, Arian Nijmeijer, and Nick E. Benes***Selectively Controlled Orientational Order in Linear-Shaped Thermally Activated Delayed Fluorescent Dopants**
Takeshi Komino, Hiroyuki Tanaka, and Chihaya Adachi***Lithium Migration Pathways and van der Waals Effects in the $LiFeSO_4OH$ Battery Material**
Christopher Eames, John M. Clark, Gwenaëlle Rousse, Jean-Marie Tarascon, and M. Saiful Islam*

Solid State Formation Mechanism of $\text{Li}_4\text{Ti}_5\text{O}_{12}$ from an Anatase TiO_2 Source

Yanbin Shen, Martin Søndergaard, Mogens Christensen, Steinar Birgisson, and Bo B. Iversen*

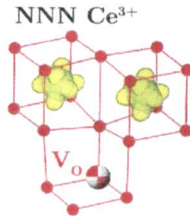


3687

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Chemical Strain and Point Defect Configurations in Reduced Ceria

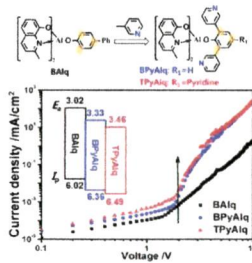
Bu Wang, Xiaoning Xi, and Alastair N. Cormack*

3693 **5**

dx.doi.org/10.1021/cm5011604

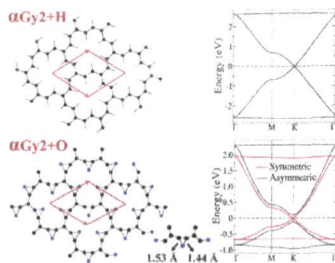
Rational Design of Chelated Aluminum Complexes toward Highly Efficient and Thermally Stable Electron-Transporting Materials

Na Lin, Juan Qiao,* Lian Duan, Jie Xue, and Liduo Wang



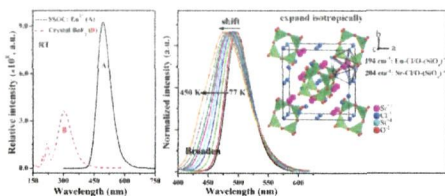
Theoretical Chemistry of α -Graphyne: Functionalization, Symmetry Breaking, and Generation of Dirac-Fermion Mass

Raphael Longinhos,* Elie Albert Moujaes, Simone Silva Alexandre, and R. W. Nunes



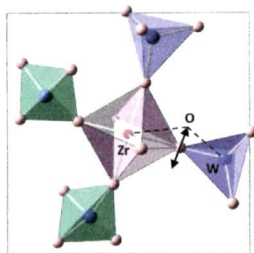
High Light Yield of $\text{Sr}_8(\text{Si}_4\text{O}_{12})\text{Cl}_6:\text{Eu}^{2+}$ under X-ray Excitation and Its Temperature-Dependent Luminescence Characteristics

Chunmeng Liu, Zeming Qi, Chong-Geng Ma, Pieter Dorenbos, Dejian Hou, Su Zhang, Xiaojun Kuang, Jianhui Zhang, and Hongbin Liang*



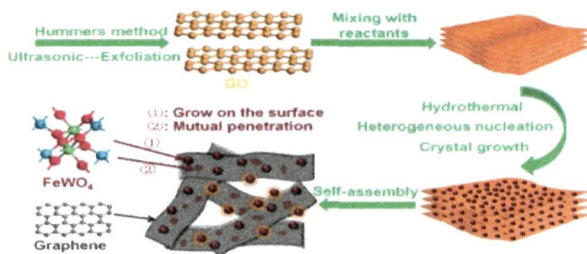
Toward an Understanding of the Local Origin of Negative Thermal Expansion in ZrW_2O_8 : Limits and Inconsistencies of the Tent and Rigid Unit Mode Models

Andrea Sanson*



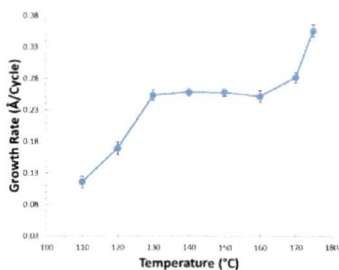
In Situ Self-Assembled FeWO₄/Graphene Mesoporous Composites for Li-Ion and Na-Ion Batteries

Wei Wang, Liwen Hu, Jianbang Ge, Zongqian Hu, Haobo Sun, He Sun, Haiqiang Zhang, Hongmin Zhu, and Shuqiang Jiao*



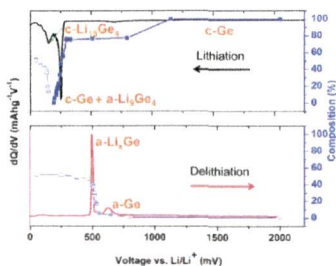
Low-Temperature Atomic Layer Deposition of Copper Films Using Borane Dimethylamine as the Reducing Co-reagent

Lakmal C. Kalutarage, Scott B. Clendinning, and Charles H. Winter*



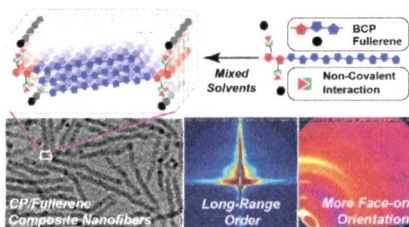
Understanding Phase Transformation in Crystalline Ge Anodes for Li-Ion Batteries

Linda Y. Lim, Nian Liu, Yi Cui, and Michael F. Toney*



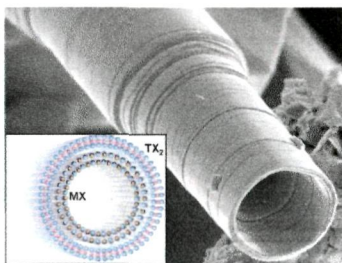
Stable and Controllable Polymer/Fullerene Composite Nanofibers through Cooperative Noncovalent Interactions for Organic Photovoltaics

Fei Li, Kevin G. Yager, Noel M. Dawson, Ying-Bing Jiang, Kevin J. Malloy, and Yang Qin*



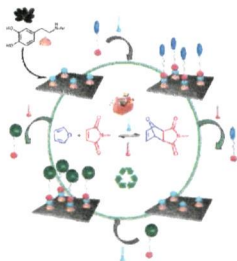
Nanotubes from the Misfit Layered Compounds $MS-TaS_2$, Where M = Pb, Sn, Sb, or Bi: Synthesis and Study of Their Structure

Gal Radovsky, Ronit Popovitz-Biro, and Reshef Tenne*



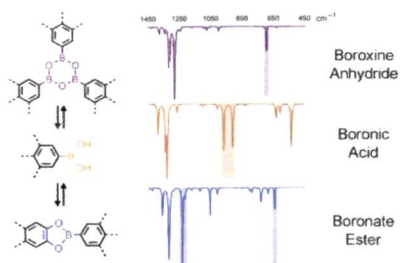
Switching the Wettability of Titanium Surfaces through Diels–Alder Chemistry

William Laure, Patrice Woisel,* and Joël Lyskawa*



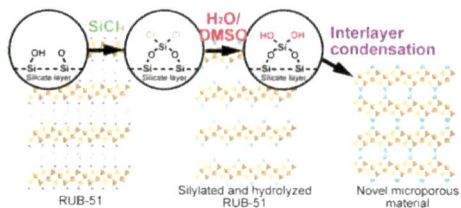
Vibrational Properties of Boroxine Anhydride and Boronate Ester Materials: Model Systems for the Diagnostic Characterization of Covalent Organic Frameworks

Merry K. Smith and Brian H. Northrop*



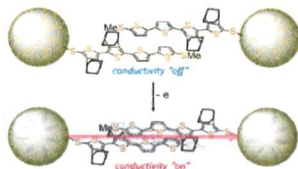
Silylation of Layered Silicate RUB-51 with SiCl_4 and Conversion of the Silylated Derivative to a Crystalline Microporous Material

Yusuke Asakura, Yasuhiro Sakamoto, and Kazuyuki Kuroda*

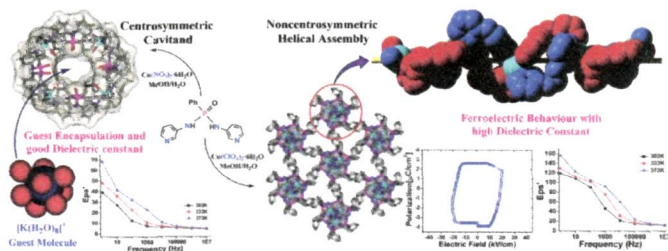


Synthesis and Conductive Properties of Gold Nanoparticles Protected by Partially Bicyclo[2.2.2]octene-Annulated and Methylthio End-Capped Oligothiophene Thiolates

Masaki Tateno, Masayoshi Takase, and Tohru Nishinaga*

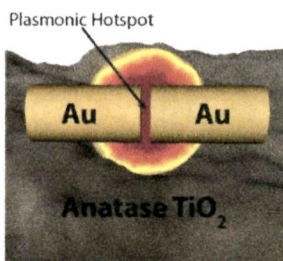


Anion Driven $[\text{Cu}^{\text{II}}\text{L}_2]_n$ Frameworks: Crystal Structures, Guest-Encapsulation, Dielectric, and Possible Ferroelectric Properties
 Anant Kumar Srivastava, B. Praveenkumar, Indra Kumar Mahawar, Pillutla Divya, S. Shalini, and Ramamoorthy Boomishankar*



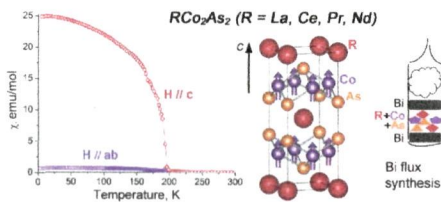
Synthesis and Characterization of a Plasmonic–Semiconductor Composite Containing Rationally Designed, Optically Tunable Gold Nanorod Dimers and Anatase TiO_2

Bryan F. Mangelson, Matthew R. Jones, Daniel J. Park, Chad M. Shade, George C. Schatz,* and Chad A. Mirkin*



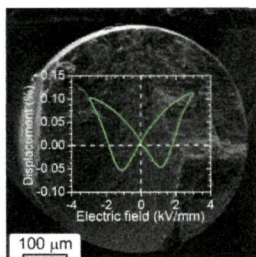
Synthesis, Structures, and Magnetic Properties of Rare-Earth Cobalt Arsenides, RCO_2As_2 ($R = \text{La}, \text{Ce}, \text{Pr}, \text{Nd}$)

Corey M. Thompson, Xiaoyan Tan, Kirill Kovnir, V. Ovidiu Garlea, Andrei A. Gippius, Alexander A. Yaroslavl'tsev, Alexey P. Menushenkov, Roman V. Chernikov, Norbert Büttgen, Wolfgang Krätschmer, Yan V. Zubavichus, and Michael Shatruk*

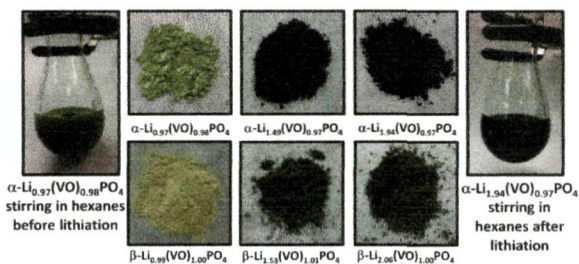


High Strain in (K,Na)NbO₃-Based Lead-Free Piezoelectric Fibers

Francesca Bortolani, Adolfo del Campo, José F. Fernandez, Frank Clemens, and Fernando Rubio-Marcos*

Chemical and Electrochemical Lithiation of LiVOPO₄ Cathodes for Lithium-Ion Batteries

Katharine L. Harrison, Craig A. Bridges, Carlo U. Segre, C. Daniel Varnado Jr., Danielle Applestone, Christopher W. Bielawski, Mariappan Parans Paranthaman, and Arumugam Manthiram*

Templated Biomineralization on Self-Assembled Protein Nanofibers Buried in Calcium Oxalate Raphides of *Musa* spp.

Xiuli Li, Wenjun Zhang, Jianwei Lu, Lixue Huang, Defeng Nan, Mary Alice Webb, Francois Hillion, and Lijun Wang*

