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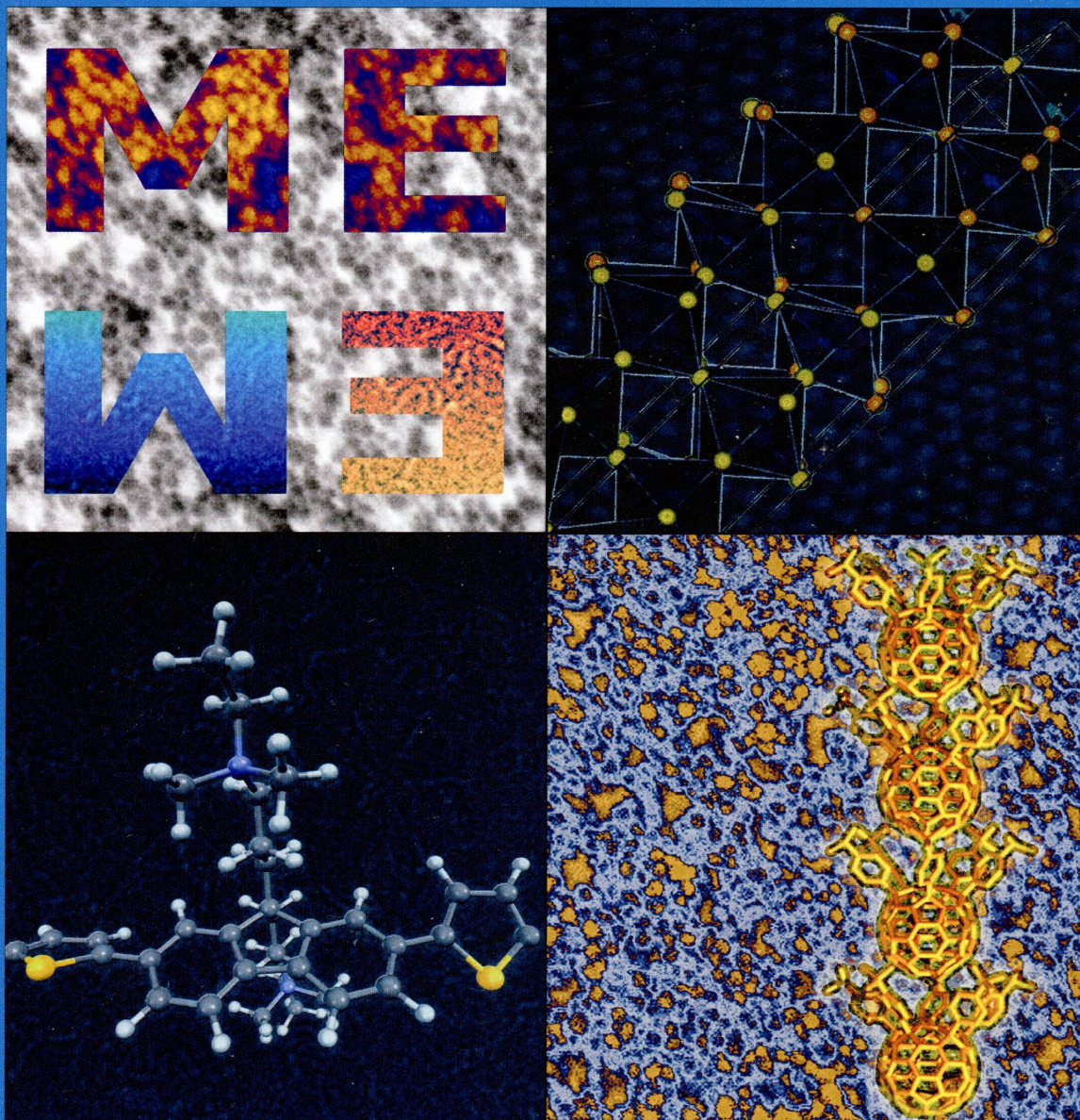
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Nanostructured
Electrodes and
Photovoltaic Materials
Studied as Part of the
Center for Molecularly
Engineered Energy
Materials (MEEM)
(see page 19505)

ENERGY CONVERSION AND STORAGE, OPTICAL AND ELECTRONIC DEVICES,
INTERFACES, NANOMATERIALS, AND HARD MATTER



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ON THE COVER: Nanostructured electrodes and photovoltaic materials studied as part of the Center for Molecularly Engineered Energy Materials (MEEM). The top left image shows a rendered image of a nanocrystal-based nanoporous electrode. The top right image depicts a nanoporous niobia electrode, accompanied by the crystal structure of niobia that helps explain the intercalation pseudocapacitance observed in this material. The bottom left image shows a rendered version of a cryo-TEM image of polymer micelles formed by an amphiphilic semiconducting polymer. The molecular structure of the polymer is also shown. Finally, the bottom right image is derived from a TEM tomograph of a polymer/fullerene sequentially processed solar cell. The image is accompanied by the molecular structure of self-assembling fullerenes studied as part of the MEEM center. See page 19505

Feature Article

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Panoramic View of Electrochemical Pseudocapacitor and Organic Solar Cell Research in Molecularly Engineered Energy Materials (MEEM)

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Energy Conversion and Storage; Energy and Charge Transport

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Kinetics of Heterosite Iron Phosphate Lithiation by Chemical Reduction

Christian Kuss, Murielle Carmant-Dérival, Ngoc Duc Trinh, Guoxian Liang, and Steen Brian Schougaard*

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Facile Bioanchoring Strategy for the Preparation of Hierarchical Multiple Structured ZnO Crystals and Its Application as a Photoanode in Dye Sensitized Solar Cells

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Epitaxial Growth of LiMn₂O₄ Thin Films by Chemical Solution Deposition for Multilayer Lithium-Ion Batteries

Yumi H. Ikuhara,* Xiang Gao, Rong Huang, Craig A. J. Fisher, Akihide Kuwabara, Hiroki Moriwake, and Keiichi Kohama

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dx.doi.org/10.1021/jp504328x

Mechanism of Solid-State Thermolysis of Ammonia Borane: A ¹⁵N NMR Study Using Fast Magic-Angle Spinning and Dynamic Nuclear Polarization


Takeshi Kobayashi,* Shalabh Gupta, Marc A. Caporini, Vitalij K. Pecharsky,* and Marek Pruski*

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[dx.doi.org/10.1021/jp506567p](https://doi.org/10.1021/jp506567p)

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[dx.doi.org/10.1021/jp506641m](https://doi.org/10.1021/jp506641m)

Role of Oxygen Adsorption in Nanocrystalline ZnO Interfacial Layers for Polymer–Fullerene Bulk Heterojunction Solar Cells

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Hydrogen Storage Materials Comprising Conjugated Hydrocarbon Polymers with LiH: Comparison of Cyclic Durability between LiH–Polyacetylene, –Poly(*p*-phenylene), and –Poly(diphenylacetylene) and Mechanistic Investigation upon LiH–Poly(*p*-phenylene)

Akihiro Yoshida,* Yoshinori Mori, Masato Watanabe, and Shuichi Naito*

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Surface Strain Effects on the Water–Graphene Interfacial and Confinement Behavior






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- 19759 [dx.doi.org/10.1021/jp503494g](https://doi.org/10.1021/jp503494g)
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Can Metal–Organic Frameworks Attain New DOE Targets for On-Board Methane Storage by Increasing Methane Heat of Adsorption?

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19842  [dx.doi.org/10.1021/jp5054474](https://doi.org/10.1021/jp5054474)

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19879  [dx.doi.org/10.1021/jp505896x](https://doi.org/10.1021/jp505896x)

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19889  [dx.doi.org/10.1021/jp506012x](https://doi.org/10.1021/jp506012x)

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