

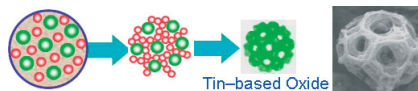
COMMUNICATIONS

Lithium-Ion Batteries

Y. Yu, C.-H. Chen,*
Y. Shi 993 – 997

A Tin-Based Amorphous Oxide Composite with a Porous, Spherical, Multideck-Cage Morphology as a Highly Reversible Anode Material for Lithium-Ion Batteries

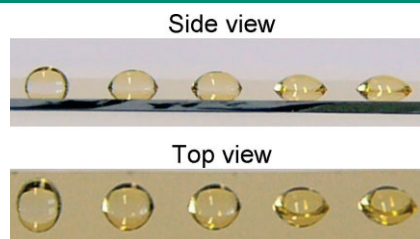
Thin-film anodes for Li-ion batteries prepared by using electrostatic spray deposition are reported. They consist of a tin-based amorphous oxide composite with a porous, spherical, multideck-cage morphology (see figure). The electrochemical properties of the thin-film electrodes are shown to be improved significantly by introducing Li_2O and CuO , the ternary $\text{Li}_2\text{O}-\text{CuO}-\text{SnO}_2$ electrode being demonstrated to exhibit the best performance.



Self-Assembled Monolayers

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A Flexible Approach to the Fabrication of Chemical Gradients

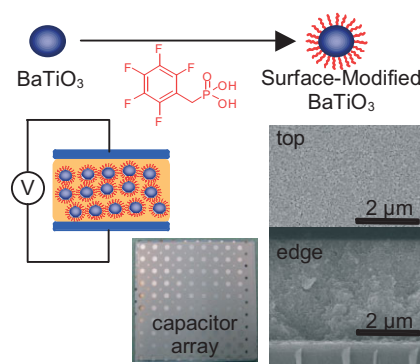


A flexible approach for the fabrication of chemical gradients on different substrates is presented. The key idea of the approach is tuning the exchange reaction between a self-assembled monolayer covering the substrate and a potential molecular substituent by electron irradiation. The figure shows water drops on a hydrophilicity gradient created using this method.

Polymer Nanocomposites

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Phosphonic Acid-Modified Barium Titanate Polymer Nanocomposites with High Permittivity and Dielectric Strength



Phosphonic acids act as robust surface modifiers on barium titanate (BT) nanoparticles (NPs) (see figure), affording homogeneous, high-volume-fraction composites of such NPs in polymeric hosts by simple solution processing. Pentafluorobenzyl phosphonic acid-modified BT nanocomposite films in poly(vinylidene fluoride-co-hexafluoropropylene) show large relative permittivities and unusually high dielectric breakdown strengths.

CORRECTION

Biomedical Applications of Layer-by-Layer Assembly: From Biomimetics to Tissue Engineering**

By Zhiyong Tang, Ying Wang, Paul Podsiadlo, and Nicholas A. Kotov*

Advanced Materials **2006**, *18*, 3203–3224.

DOI: 10.1002/adma.200600113

In the Introduction to this review article, we overlooked the early and important contributions of Prof. Jacob Sagiv to research on self-assembled monolayers. Prof. Sagiv's influential paper, *J. Am. Chem. Soc.* **1983**, *105*, 674, should be considered as an addition to the reference list of the review. The authors thank Prof. R. Tenne for pointing out this oversight.