CONTENTS

ARTICLES

TEM failure analysis of electrochemically delithiated LiNi_{0.5}Mn_{1.5}O_4 spinel ................................................ 1405
   Xiangyun Song, Yanbao Fu,
   Chengyu Song and Vincent Battaglia

A special TEM Li-ion battery sample preparation and application technique for investigating the nano structural properties of the SEI in lithium ion batteries ....................... 1415
   Xiangyun Song, Yanbao Fu,
   Chengyu Song, Philip Ross
   and Vince Battaglia

Creation of micro and macro spaces by electrospinning and application to electrode materials of energy devices .......... 1423
   K. Oshida, N. Kobayashi, K. Osawa,
   Y. Takizawa, T. Itaya,
   M. Murata and S. Sato

Improved cyclability of Nickel-rich layered oxides .............. 1433
   Nils P. Wagner, Julian R. Tolchard,
   Artur Tron, Harald N. Pollen,
   Heiko Gaertner and Per E. Vullum

Light-enhanced Electrochemical Energy Storage of Synthetic Melanin on Conductive Glass Substrates ............... 1441
   Ri Xu, Abdelaziz Gouda,
   Maria Federica Caso, Francesca Soavi
   and Clara Santato

Microwave-assisted Synthesis of 1-(perfluorohexyl)-3-methylimidazolium iodide .............................................. 1449
   James E. Knoop and Jeffrey R. Alston

“Inward Growth” Corrosion and Its Growth Mechanism in Ancient Chinese Bronzes ................................. 1457
   Bingjie Li, Xudong Jiang,
   Yin Tu, Qiang Fu and Chunxu Pan
First-Principles Study of the Electrochemical Sodiation of Rutile-Type Vanadium Dioxide ................. 1467
   Daniel Koch and Sergei Manzhos

Sarin and Air Permeation Through a Nanoporous Graphene ................................................. 1475
   Marco A. Maria and Alexandre F. Fonseca

GaN Nuclear Batteries: Radiation Modeling for the Accelerated Contact Exposure of Betavoltaics .......... 1483
   Lance Hubbard, Christian Cowles, Andrew Prichard, Gary Sevigny, Jesse Johns, Durier Calderin Morales, Libor Kovarik, Erin Fuller, Bethany Matthews and David Schwellenbach

Facet-dependent Catalysis of CuNi Nanocatalysts toward 4-Nitrophenol Reduction Reaction ................. 1491
   Can Li, Yiliang Luan, Bo Zhao, Amar Kumbhar, Xiaobo Chen, David Collins, Guangwen Zhou and Jiye Fang