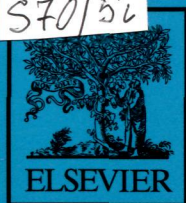


NU
S70/5i

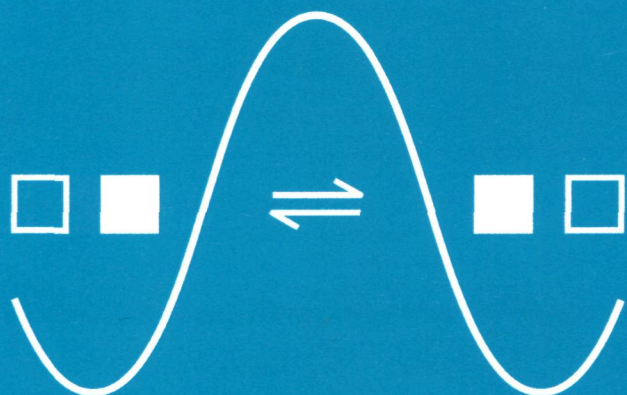
VOLUME 258, 1 May 2014

ISSN 0167-2738



SOLID STATE IONICS

DIFFUSION & REACTIONS



Principal Editor

Joachim Maier, Stuttgart, Germany

Regional Editor Europe

John Kilner, London, UK

Regional Editor Asia

Koichi Eguchi, Kyoto, Japan

Hong Li, Beijing, China

Regional Editor USA

Arumugam Manthiram, Austin, TX, USA

Editors

Klaus Funke, Münster, Germany

Truls Norby, Oslo, Norway

Josh Thomas, Uppsala, Sweden

Founding Editor

M. Stanley Whittingham, Binghamton, NY, USA

Editorial Assistant

Rotraut Merkle, Stuttgart, Germany

SOLID STATE IONICS

VOLUME 258, 1 May 2014

Abstracted / Indexed in: Chemical Abstracts / Aluminium Industry Abstracts / ISMEC / METADEX / PASCAL / PIRA / Engineered Materials Abstracts / Analytical Abstracts / Chemical Engineering and Biotechnology Abstracts / CAB Abstracts / GeoRef / Energy Science and Technology. Also covered in the abstract and citation database Scopus®. Full text available on ScienceDirect®.

CONTENTS

Preparation and electrical properties of garnet-type $\text{Li}_6\text{BaLa}_2\text{Ta}_2\text{O}_{12}$ lithium solid electrolyte thin films prepared by pulsed laser deposition J. Reinacher, S. Berendts and J. Janek	1
A gelatin-based sol-gel procedure to synthesize the LiFePO_4/C nanocomposite for lithium ion batteries M. Gao, N. Liu, Z. Li, W. Wang, C. Li, H. Zhang, Y. Chen, Z. Yu and Y. Huang	8
High lithium ion conductivity of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ synthesized by solid state reaction J.-M. Lee, T. Kim, S.-W. Baek, Y. Aihara, Y. Park, Y.-I. Kim and S.-G. Doo	13
Interaction between A-site deficient $\text{La}_{0.8}\text{Sr}_{0.2}\text{Ga}_{0.8}\text{Mg}_{0.2}\text{O}_{3-\delta}$ (LSGM8282) and $\text{Ce}_{0.9}\text{Gd}_{0.1}\text{O}_{3-\delta}$ (GDC) electrolytes H.T. Suzuki, T. Uchikoshi, C. Matsunaga, K. Furuya and F. Munakata	18
Magnesium ion distribution and defect concentrations of MgO-doped lanthanum silicate oxyapatite K. Kobayashi, T.S. Suzuki, T. Uchikoshi and Y. Sakka	24
Enhanced oxygen surface exchange of $\text{La}_2\text{NiO}_{4+\delta}$ by means of a thin surface layer of silver A. Egger and W. Sitte	30
Reduction in ohmic contact resistance at interface between Gd-doped CeO_2 interlayer and Sc_2O_3 -stabilized ZrO_2 electrolyte in SOFCs to improve performance H. Shimada and A. Hagiwara	38
Micro scale dynamic modeling of LSM/YSZ composite cathodes S. Pakalapati, K. Gerdes, H. Finklea, M. Gong, X. Liu and I. Celik	45
Microstructure and ionic conductivity of SrTiO_3 heterogeneously doped YSZ composite ceramics B. Meng, Z.Y. Miao, M. Kong, X.X. Liu, J. Yu and Q.Q. Yang	61
Coaxial electrospun Si/C-C core-shell composite nanofibers as binder-free anodes for lithium-ion batteries Y. Li, G. Xu, Y. Yao, L. Xue, M. Yanilmaz, H. Lee and X. Zhang	67
The molecular structures and the relationships between the calculated molecular and observed bulk phase properties of phosphonium-based ionic liquids R.P. Morco, A.Y. Musa and J.C. Wren	74
Study of $\text{Li}_2\text{O}-\text{B}_2\text{O}_3-\text{Dy}_2\text{O}_3$ glasses by impedance spectroscopy D.D. Ramteke and R.S. Gedam	82
Screening study of light-metal and transition-metal-doped NiTiH hydrides as Li-ion battery anode materials Z. Qian, X. Jiang, A. De Sarkar, T.A. Maark, M.D. Deshpande, M. Bououdina, B. Johansson and R. Ahuja	88
Sulfonated polyimides and their polysilsesquioxane hybrid membranes for fuel cells Y. Song, X. Cao, Q. Liang, Y. Jin, Y. Qi, W. Hu, K. Li, Z. Jiang and B. Liu	92



0167-2738(20140501)258C;1-I

Available online at www.sciencedirect.com

ScienceDirect