

CONTENTS

Preface	iii
In Situ Xas Study Of $\text{Li}_{(1-z)}\text{Ni}_{(1+z)}\text{O}_2$ ($z \leq 0.02$) Cathode Material A. N. Mansour, X. Q. Yang, X. Sun, J. McBreen, L. Croguennec, and C. Delmas	1
<i>In Situ</i> X-Ray Absorption Studies Of A High-Rate $\text{LiNi}_{0.85}\text{Co}_{0.15}\text{O}_2$ Cathode Material M. Balasubramanian, X Sun, X. Q. Yang, and, J. McBreen	14
In Situ X-ray Diffraction Studies of a New $\text{LiMg}_{0.125}\text{Ti}_{0.125}\text{Ni}_{0.75}\text{O}_2$ Cathode Material X. Q. Yang, X. Sun, J. McBreen Y. Gao, M. V. Yakovleva, X. K. Xing, M. L. Daroux, and S. Mukerjee	30
The Reactivity of Lithium Toward Propylene Carbonate in Ultrahigh Vacuum: A Combined IRAS, AES and XPS Study. L. J. Rendek, Jr, G. S. Chottiner and D. A. Scherson	45
X-Ray Photoelectron Spectroscopy and Morphological Studies of Polycrystalline Nickel Surfaces Exposed to Anhydrous HF G. G. Totir, G. S. Chottiner, C. L. Gross, W. Ves Childs, and D. A. Scherson	51
XAFS of adsorbed species on supported Pt S. Maniguet, R. J. Mathew, and A. E. Russell	61
Potential Dependent Infrared Absorption Spectroscopy of Adsorbed CO on Arc-melted Single Phase Pt, PtRu, PtOs, PtRuOs and Ru Electrodes R. Liu, H. Iddir, Q. Fan, K. Ley, G. Hou, A. Bo, and E. S. Smotkin	68
<i>In-Situ</i> Surface Reflective FTIR and On-Line Transmission Spectroscopy of Direct Methanol Fuel Cell Anode Surfaces and Exhaust at 50°C A. Bo, S. Sanicharane, R. Liu, B. Sompalli, G. Hou, Q. Fan, B. Gurau, and E. S. Smotkin	94
<i>In Situ</i> Time-Resolved Structural Study of an Electrode Process by Surface Differential Diffraction D. Lee, J. W. Ndieyira, and T. Rayment	111
Metal Dissolution in the Presence of Aqueous Electrolyte: Quantum Chemical Calculations R. I. Eglitis S. V. Izvekov, and M. R. Philpott	122

Application of Silver Electrodeposition for the Optimisation of the Surface Roughness for Quantitative SERS Measurements D. Gonnissen and A. Hubin	127
Electrochemistry And Confocal Raman Microspectrometry L. Servant, F. Bonhomme, J. L. Bruneel, J. Grondin, J. C. Lassègues, and F. Argoul	139
Attenuated Total Reflection FTIR Studies of Self-Assembled Monolayers of Alkanethiols on Gallium Arsenide T. Baum, S. Ye and K. Uosaki	149
<i>In Situ</i> Infrared Spectroscopy on Electrode Surfaces G. L. J. Trettenhahn	155
<i>In-Situ</i> Infrared Observation of Etching and Oxidation Processes of Si Surface in NH ₄ F Solution M. Niwano, Y. Kondo, and Y. Kimura	161
Formation of Electroluminescent Patterns with 9,10-Diphenylanthracene: Examples of Electrohydrodynamic Structures D. Dini	171
Non-Site Selective Deposition of Poly(vinylferrocene) on Polycrystalline Gold Electrode X. Zeng, S. Bruckenstein, A. R. Hillman, G. L. Jones, and P. Bush	178
Au Deposition from Aqueous HF onto H-Si(111) R. Srinivasan and I. I. Suni	186
Subject Index	196