

# Contents

Foreword	v
Acknowledgements	vii
Introduction to Fuel Cell Technology ÁRON VARGA	1
Stable Glass Seals for Intermediate Temperature (IT) SOFC Applications QINGSHAN ZHU, LIAN PENG, AND TAO ZHANG	33
A Novel Technology of Solid Oxide Fuel Cell Fabrication PIOTR JASINSKI, TOSHIO SUZUKI, VLADIMIR PETROVSKY, AND HARLAN U. ANDERSON	61
In Situ Seal Integrity Sensing for Solid Oxide Fuel Cells JOHN OLENICK, DR. VISWANATHAN VENKATESWARAN, TIM CURRY, ROBERT BOURDELAISE, ELI RICHARDS, PAUL VICHOT, AND BARRY GRABOW	85
Solid Oxide Fuel Cell DR. XUAN WANG	97
Benefits and Test Results of a Ceramic Separator Component for Micro Fuel Cells KEITH EASLER	113
Foil Type Micro PEM Fuel Cell with Self-Breathing Cathode Side STEFAN WAGNER, ROBERT HAHN, AND HERBERT REICHL	123

Thermal Constraints of PEM Micro Fuel Cells for Portable Electronics ROBERT HAHN, STEFAN WAGNER, AND HERBERT REICHL	145
A Direct Methanol Fuel Cell Using Cermet Electrodes in Low Temperature Cofire Ceramics W. KINZY JONES, NAVEEN SAVARAM, AND NORMAN MUNROE	165
Automated Fluid Dispensing for Fuel Cell Manufacture and Assembly ALAN LEWIS	181
Ink-Jet as Direct-Write Technology for Fuel Cell Packaging and Manufacturing VIRANG G. SHAH, DONALD J. HAYES, AND DAVID B. WALLACE	205
Index	239