

List of Contents

PAGE

Foreword

5

B2.4	The structural properties of anodic Ag(I) oxide nanofilm	7
B2.5	Effect of complexing agent and frequency on the pulsed electrolytic colouring process of aluminium	25
B4.1	Drinking water disinfection by direct electrolysis – state of the art	30
B4.2	Electrocoagulation as a tertiary treatment of urban wastewaters	47
B4.3	Advanced oxidation technologies for the treatment of effluents from doormanufacturing factories	54
B4.5	Electrochemistry of Ferrates(VI) in molten salt environment	67
B4.6	Comparison of the Electrochemical Ferrate(VI) Synthesis in Water and Molten Salts Environment	73
B4.7	Synthesis of novel oxidants by electrochemical technology	82
B4.8	Ionic liquids as potential supporting electrolytes for the anodic oxidation of 4-methylanisole	89
B5.1	Proton conduction mechanism in H ₃ PO ₄ imbibed Polymer electrolytes. The effect of water vapours	102
B5.3	Catalyst Electrode Preparation for PEM Fuel Cells by Electrodeposition	111
B5.4	Electrochemical preparation of gas diffusion electrodes for PEMFC	122
B5.5	EIS measurements in the diagnosis of the environment within a PEMFC stack	130
B5.6	Performance of a Polybenzimidazole based Direct Ethanol Fuel Cell	143
B5.7	Electricity generation from cheese whey using a microbial fuel cell	155
B6.4	SOFC fuelled by methane: anode barrier allowing gradual internal reforming without coking	167
B6.5	Electrochemical characterization of a La _{0.8} Sr _{0.2} Co _{0.2} Fe _{0.8} O _{3.8} electrode	181
B6.7	Diagnosis of Li-ion Batteries Used for Power Applications in the Automotive Industry	194
B7.3	Simulation of a High Temperature Electrolyzer for Hydrogen Production	208
B7.4	Modelling a High Temperature PEM fuel cell	218
B7.5	Modelling of SOFC Stack fed with methane	230
P7.123	Estimating the Al anodic oxide film porosity as a function of electrochemical processing conditions at industrial level	245
P7.134	Synthesis of Porous LiMn ₂ O ₄ Powders by the Solvent Evaporation Method	261
P7.138	Synchronization properties of coupled electrochemical bursters	268
P7.141	The role of supporting electrolyte anion in the electrochemical methoxylation of 4-methylanisole	274
P7.147	Studies over potassium permanganate obtaining technology	289