SUBJECT INDEX

a c impedance techniques quality assessment of unactivated cells by, 285

Additives

effect of Ag, Cu and Pd, on performance of carbon electrodes in Li/ SOCl₂ system, 233

Alkaline batteries

high-porosity sintered cobalt negative electrodes for, 271

Antimony

in lead-acid cells, generation and uptake of soluble, 171

Batteries

alkaline, high-porosity sintered cobalt negative electrodes for, 271

aqueous secondary, polybenzene as positive electrode in, 179

lead-acid, for electric vehicles, performance testing of advanced, 107

lithium intercalation, sulfone-based electrolytes for, 193

lithium organic electrolyte, copper oxide cathodes for, 309

nickel-cadmium, computer-controlled discharge unit for testing of, 119

positive half-cell of redox, investigation of V(V)/V(IV) system for use in, 85

Battery cells

lithium/molten nitrate thermal, using silver salts as solid cathode materials, discharge characteristics of, 243

Battery chemical

manganese dioxide, review of, solid state and electrochemical properties. 1

Battery electrolytes

Zn/Br, properties of, 53

Battery plates

lead/acid, study of phase composition, crystallinity, morphology, porosity and surface area of leady oxides used in, 141

Bismuth

button cells based on L₁/B₁₂O₃ couple, 263

Bromine

properties of Zn/Br battery electrolytes, 53

Button cells

based on Li/Bi₂O₃ couple, 263

Cadmium

computer-controlled discharge unit for testing of Ni-Cd cells and batteries, 119

protection of sealed Ni-Cd cells against cell voltage reversal, influence of separator on formation of Cd bridges, 253

Carbon

electrodes in Li/SOCl₂ system, effect of Ag, Cu and Pd additives on performance of, 233

Cathode(s)

copper oxide, for lithium organic electrolyte batteries, 309

Cathode materials

lithium/molten nitrate thermal battery cells using silver salts as solid, discharge characteristics of, 243

Cell(s)

button, based on L₁/B₁₂O₃ couple, 263 lead-acid

design optimization of tall tubular, based on analysis of reaction distribution, 65

generation and uptake of soluble antimony, 171

Li/1 M LiClO₄(PC)/V₂O₅, discharge characteristics and interface impedance of, 97

nickel-cadmium

computer-controlled discharge unit for testing of, 119

protection of sealed, against cell voltage reversal, influence of separator on formation of Cd bridges, 253

unactivated, quality assessment of, by a c impedance techniques, 285

Cell voltage reversal

protection of sealed Ni-Cd cells against,

influence of separator on formation of Cd bridges, 253

Cobalt

high-porosity sintered, negative electrodes for alkaline batteries, 271

Copper

effect of Ag, Cu and Pd additives on performance of carbon electrodes in Li/SOCl₂ system, 233

Copper oxide

cathodes for lithium organic electrolyte batteries, 309

Crystallinity

study of, phase composition, morphology, porosity and surface area of leady oxides used in lead/acid battery plates, 141

Design optimization

of tall tubular lead/acid cells based on analysis of reaction distribution, 65

Discharge characteristics

and interface impedance of Li/1 M LiClO₄(PC)/V₂O₅ cell, 97 of lithium/molten nitrate thermal battery cells using silver salts as solid

cathode materials, 243

Discharge unit

for testing of Ni-Cd cells and batteries, computer-controlled, 119

Dissociation constant

determination of, of molten Li₂CO₃/ Na₂CO₃/K₂CO₃ using stabilized zirconia oxide-ion indicator, 75

Electric vehicles

performance testing of advanced leadacid batteries for, 107

Electrochemical impregnation

lightweight nickel composite electrode,

Electrochemical investigations

of stationary and non-stationary behaviour of PbO₂ electrode, 293

Electrochemical properties

of manganese dioxides, solid state and, review of battery chemical, 1

Electrochemical reaction

between lithium and phthalocyanine, reduction reaction mechanism, 45

Electrode(s)

carbon, effect of Ag, Cu and Pd additives on performance of, in Li/SOCl₂ system, 233 cobalt, high-porosity sintered, negative, for alkaline batteries, 271

lightweight Ni composite, electrochemical impregnation, 131

PbO₂, electrochemical investigations of stationary and non-stationary behaviour of, 293

polybenzene as positive, in aqueous secondary batteries, 179

Electrolyte(s)

lithium organic, batteries, copper oxide cathodes for, 309

sulfone-based, for lithium intercalation batteries, 193

Zn/Br battery, properties of, 53

Interface impedance

discharge characteristics and, of Li/1 M LiClO₄(PC)/V₂O₅ cell, 97

Kinetic studies

of electrochemical reaction between lithium and phthalocyanine, reduction reaction mechanism, 45

Lead

PbO₂ electrode, electrochemical investigations of stationary and nonstationary behaviour of, 293

Lead-acid batteries

for electric vehicles, performance testing of advanced, 107

Lead-acid battery plates

study of phase composition, crystallinity, morphology, porosity and surface area of leady oxides used in, 141

Lead-acid cells

antimony in, generation and uptake of soluble, 171

design optimization of tall tubular, based on analysis of reaction distribution, 65

Leady oxides

study of phase composition, crystallinity, morphology, porosity and surface area of, used in lead/acid battery plates, 141

Lithium

button cells based on Li/Bi₂O₃ couple, 263

determination of dissociation constant of molten Li₂CO₃/Na₂CO₃/K₂CO₃ using stabilized zirconia oxide-ion indicator, 75

discharge chatacteristics

and interface impedance of Li/1 M LiClO₄(PC)/V₂O₅ cell, 97 of lithium/molten nitrate thermal

of lithium/molten nitrate thermal battery cells using silver salts as solid cathode materials, 243

intercalation batteries, sulfone-based electrolytes for, 193

kinetic studies of electrochemical reaction between Li and phthalocyanine, reduction reaction mechanism, 45

organic electrolyte batteries, copper oxide cathodes for, 309

performance of carbon electrodes in Li/SOCl₂ system, effect of Ag, Cu and Pd additives on, 233

Manganese dioxide

solid state and electrochemical properties of, review of battery chemical, 1 Morphology

study of, phase composition, crystallinity, porosity and surface area of leady oxides used in lead/acid battery plates, 141

Nickel

computer-controlled discharge unit for testing of Ni-Cd cells and batteries,

lightweight Ni composite electrode, electrochemical impregnation, 131 Nickel-cadmium cells

protection of sealed, against cell voltage reversal, influence of separator on formation of Cd bridges, 253

Nitrate

discharge characteristics of lithium/ molten nitrate thermal battery cells using silver salts as solid cathode materials, 243

Palladium

effect of Ag, Cu and Pd additives on performance of carbon electrodes in Li/SOCl₂ system, 233

Phase composition

study of, crystallinity, morphology, porosity and surface area of leady oxides used in lead/acid battery plates, 141

Phthalocyanine

kinetic studies of electrochemical reaction between lithium and, reduction reaction mechanism, 45

Polybenzene

as positive electrode in aqueous secondary batteries, 179

Porosity

study of, phase composition, crystallinity, morphology, and surface area of leady oxides used in lead/ acid battery plates, 141

Potassium

determination of dissociation constant of molten Li₂CO₃/Na₂CO₃/K₂CO₃ using stabilized zirconia oxide-ion indicator, 75

Power supply systems

remote area, case study of requirements and options, 205

Quality assessment

of unactivated cells by a c impedance techniques, 285

Redox battery

investigation of V(V)/V(IV) system for use in positive half-cell of, 85

Remote area power supply systems case study of requirements and options, 205

Separator

influence of, on formation of Cd bridges, protection of sealed Ni-Cd cells against cell voltage reversal, 253

Silver

discharge characteristics of lithium/ molten nitrate thermal battery cells using silver salts as solid cathode materials, 243

effect of Ag, Cu and Pd additives on performance of carbon electrodes in Li/SOCl₂ system, 233

Sodium

determination of dissociation constant of molten Li₂CO₃/Na₂CO₃/K₂CO₃ using stabilized zirconia oxide-ion indicator, 75

Sulfone-based electrolytes

for lithium intercalation batteries, 193 Surface area

study of phase composition, crystallinity, morphology, porosity and, of leady oxides used in lead/acid battery plates, 141

Unactivated cells quality assessment of, by a c impedance techniques, 285

Vanadium

discharge characteristics and interface impedance of Li/1 M LiClO₄(PC)/V₂O₅ cell, 97

Zinc

properties of Zn/Br battery electrolytes, 53

Zirconium

determination of dissociation constant of molten Li₂CO₃/Na₂CO₃/K₂CO₃ using stabilized zirconia oxide-ion indicator, 75