

## Subject Index of Volume 40

---

### Alloy

- cycling behaviour of electrodeposited zinc alloy electrode for secondary lithium batteries, 283

### Alloys

- the anodic behaviour of tin and a lead-tin alloy in sulfuric acid, 217
- castability of low-antimony/lead battery alloys, 225
- unusual effects of ammonium ligno-sulphonate on the electrochemical behaviour of lead, lead-calcium, and lead-antimony alloys, 323

### Ammonium ligno-sulphonate,

- unusual effects of ammonium ligno-sulphonate on the electrochemical behaviour of lead, lead-calcium, and lead-antimony alloys, 323

### Anodic behaviour

- the anodic behaviour of tin and a lead-tin alloy in sulfuric acid, 217

### Antimony

- castability of low-antimony/lead battery alloys, 225
- unusual effects of ammonium ligno-sulphonate on the electrochemical behaviour of lead, lead-calcium, and lead-antimony alloys, 323

### Barium

- High-temperature superconductor,  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  as all-solid-state lithium cell, 361

### Battery applications

- development status of a sealed bipolar lead/acid battery for high-power battery applications, 63
- electrolytic manganese dioxides for battery applications: studies using electron paramagnetic resonance, 355

### Battery separator technology

- worldwide trends in battery separator technology and usage, 195

### Battery technology

- submarine battery technology — an aid to electric vehicle battery design?, 113

### Bromine

- a study on novel lithium-iodine and lithium-bromine solid electrolyte batteries, 257

### Calcium

- unusual effects of ammonium ligno-sulphonate on the electrochemical behaviour of lead, lead-calcium, and lead-antimony alloys, 323

### Capacity

- premature capacity-loss mechanisms in lead/acid batteries, 125
- reversible capacity decay of  $\text{PbO}_2$  electrodes. Influence of high rate discharges and rest times, 157
- influence of crystal and gel zones on the capacity of the lead dioxide active mass (extended abstract), 169
- conductance testing compared to traditional methods of evaluating the capacity of valve-regulated lead/acid batteries and predicting state-of-health, 235

### Catalysts

- noble metal-free catalysts for the hydrogen/oxygen recombination in sealed lead/acid batteries using immobilized electrolytes, 175

### Cathode

- application of  $\text{FeOCl}$  derivatives as cathode materials for a secondary lithium battery. II. Comparison of the discharge and charge characteristics of  $\gamma\text{-FeOOH}$  prepared from the intercalation compound of  $\text{FeOCl}$  and 4-aminopyridine with those of  $\text{FeOOH}$  intercalated with aniline ( $\alpha\text{-FeOOH(AN)}$ ), 291

### Cathodes

- a new way of obtaining  $\text{Li}_x\text{Ni}_{1-x}\text{O}$  cathodes for molten-carbonate fuel cells, 265

### Charging

- a model for simulating fast charging of lead/acid batteries, 81
- very fast charging of low-resistance lead/acid batteries, 93

- gas detection and minimization of gas and heat production at the end of fast charging, 105
- Cobalt
  - synthesis of  $\text{LiCoO}_2$  from cobalt-organic acid complexes and its electrode behaviour in a lithium secondary battery, 347
- Conductance testing
  - conductance testing compared to traditional methods of evaluating the capacity of valve-regulated lead/acid batteries and predicting state-of-health, 235
- Copper
  - high-temperature superconductor,  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  as all-solid-state lithium cell, 361
- Corrosion
  - activity and corrosion of tungsten carbide recombination electrodes during lead/acid battery operation, 333
- Cycle testing
  - driving cycle testing of electric vehicle batteries and systems, 73
- Cycling behaviour
  - cycling behaviour of electrodeposited zinc alloy electrode for secondary lithium batteries, 283
- Discharge/charge characteristics
  - application of  $\text{FeOCl}$  derivatives as cathode materials for a secondary lithium battery. II. Comparison of the discharge and charge characteristics of  $\gamma\text{-FeOOH}$  prepared from the intercalation compound of  $\text{FeOCl}$  and 4-aminopyridine with those of  $\text{FeOOH}$  intercalated with aniline ( $\alpha\text{-FeOOH(AN)}$ ), 291
- Electrical breakdown
  - electrical breakdown phenomena in  $(\text{PEO})_x\text{LiF}_3\text{CSO}_3$  ion-conducting polymers, 271
- Electric vehicle battery
  - driving cycle testing of electric vehicle batteries and systems, 73
  - submarine battery technology — an aid to electric vehicle battery design?, 113
- Electric vehicle(s)
  - CITELEC — electric vehicles on the move in Europe's cities, 17
  - alternative strategy for introducing electric vehicles, 23
  - the Clean Air LA301 electric vehicle for the Los Angeles electric vehicle initiative, 27
  - tubular positive plate batteries for motive power and electric vehicle applications, 39
  - gelled-electrolyte batteries for electric vehicles, 47
- Electrochemical behaviour
  - unusual effects of ammonium ligno-sulphonate on the electrochemical behaviour of lead, lead-calcium, and lead-antimony alloys, 323
- Electrode
  - a new electrode for a poly(pyrrrole)-based rechargeable battery, 299
- Electrode behaviour
  - synthesis of  $\text{LiCoO}_2$  from cobalt-organic acid complexes and its electrode behaviour in a lithium secondary battery, 347
- Electrodes
  - reversible capacity decay of  $\text{PbO}_2$  electrodes. Influence of high rate discharges and rest times, 157
  - activity and corrosion of tungsten carbide recombination electrodes during lead/acid battery operation, 333
  - performance of tungsten carbide recombination electrodes under various operating conditions, 341
- Electron paramagnetic resonance
  - electrolytic manganese dioxides for battery applications: studies using electron paramagnetic resonance, 355
- Epoxy matrices
  - mounting of lead/acid battery positive-plate materials in epoxy matrices: an investigation of instances of excessive heating, 365
- Fluorine
  - electrical breakdown phenomena in  $(\text{PEO})_x\text{LiF}_3\text{CSO}_3$  ion-conducting polymers, 271
- Gas detection
  - gas detection and minimization of gas and heat production at the end of fast charging, 105

- Gelled electrolyte  
 gelled-electrolyte batteries for electric vehicles, 47  
 gelled-electrolyte lead/acid batteries for stationary and traction applications, 187
- Grid-paste interface  
 scanning laser microscopy studies of grid-paste interfacial areas, 147
- Hydrogen/oxygen recombination  
 noble metal-free catalysts for the hydrogen/oxygen recombination in sealed lead/acid batteries using immobilized electrolytes, 175
- Iodine  
 a study on novel lithium-iodine and lithium-bromine solid electrolyte batteries, 257
- Iron  
 application of FeOCl derivatives as cathode materials for a secondary lithium battery. II. Comparison of the discharge and charge characteristics of  $\gamma$ -FeOOH prepared from the intercalation compound of FeOCl and 4-aminopyridine with those of FeOOH intercalated with aniline (*a*-FeOOH(AN)), 291
- Lead  
 the anodic behaviour of tin and a lead-tin alloy in sulfuric acid, 217  
 castability of low-antimony/lead battery alloys, 225  
 unusual effects of ammonium ligno-sulphonate on the electrochemical behaviour of lead, lead-calcium, and lead-antimony alloys, 323
- Lead/acid batteries  
 the Advanced Lead/Acid Battery Consortium, 1  
 development status of a sealed bipolar lead/acid battery for high-power battery applications, 63  
 a model for simulating fast charging of lead/acid batteries, 81  
 very fast charging of low-resistance lead/acid batteries, 93  
 premature capacity-loss mechanisms in lead/acid batteries, 125  
 noble metal-free catalysts for the hydrogen-oxygen recombination in sealed lead/acid batteries using immobilized electrolytes, 175  
 gelled-electrolyte lead/acid batteries for stationary and traction applications, 187  
 conductance testing compared to traditional methods of evaluating the capacity of valve-regulated lead/acid batteries and predicting state-of-health, 235  
 activity and corrosion of tungsten carbide recombination electrodes during lead/acid battery operation, 333  
 mounting of lead/acid battery positive-plate materials in epoxy matrices: an investigation of instances of excessive heating, 365
- Lead/acid system  
 photocurrent spectroscopy and its application to the study of the lead/acid system, 137
- Lead dioxide  
 scanning tunneling microscopy of lead dioxide, 149  
 reversible capacity decay of PbO<sub>2</sub> electrodes. Influence of high rate discharges and rest times, 157  
 influence of crystal and gel zones on the capacity of the lead dioxide active mass (extended abstract), 169
- Lithium  
 a study on novel lithium-iodine and lithium-bromine solid electrolyte batteries, 257  
 a new way of obtaining Li<sub>x</sub>Ni<sub>1-x</sub>O cathodes for molten-carbonate fuel cells, 265  
 electrical breakdown phenomena in (PEO)<sub>x</sub>LiF<sub>3</sub>CSO<sub>3</sub> ion-conducting polymers, 271  
 cycling behaviour of electrodeposited zinc alloy electrode for secondary lithium batteries, 283  
 application of FeOCl derivatives as cathode materials for a secondary lithium battery. II. Comparison of the discharge and charge characteristics of  $\gamma$ -FeOOH prepared from the intercalation compound of FeOCl and 4-aminopyridine with those of FeOOH intercalated with aniline (*a*-FeOOH(AN)), 291  
 synthesis of LiCoO<sub>2</sub> from cobalt-organic acid complexes and its electrode behaviour in a lithium secondary battery, 347

- high-temperature superconductor,  
 $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  as all-solid-state lithium cell, 361
- Manganese**  
 electrolytic manganese dioxides for battery applications: studies using electron paramagnetic resonance, 355
- Molten-carbonate fuel cells**  
 a new way of obtaining  $\text{Li}_x\text{Ni}_{1-x}\text{O}$  cathodes for molten-carbonate fuel cells, 265
- Nickel**  
 a new way of obtaining  $\text{Li}_x\text{Ni}_{1-x}\text{O}$  cathodes for molten-carbonate fuel cells, 265
- Organic acids**  
 synthesis of  $\text{LiCoO}_2$  from cobalt-organic acid complexes and its electrode behaviour in a lithium secondary battery, 347
- Photocurrent spectroscopy**  
 photocurrent spectroscopy and its application to the study of the lead/acid system, 137
- Poly(ethylene oxide)**  
 electrical breakdown phenomena in  $(\text{PEO})_x\text{LiF}_3\text{CSO}_3$  ion-conducting polymers, 271
- Poly(pyrrole)**  
 a new electrode for a poly(pyrrole)-based rechargeable battery, 299
- Positive plate**  
 tubular positive plate batteries for motive power and electric vehicle applications, 39  
 mounting of lead/acid battery positive-plate materials in epoxy matrices: an investigation of instances of excessive heating, 365
- Regenerative fuel cells**  
 application of regenerative fuel cells for space energy storage: a comparison to battery systems, 307
- Scanning laser microscopy**  
 scanning laser microscopy studies of grid-paste interfacial areas, 147
- Scanning tunneling microscopy**  
 scanning tunneling microscopy of lead dioxide, 149
- Solid electrolyte**  
 a study on novel lithium-iodine and lithium-bromine solid electrolyte batteries, 257
- Space**  
 application of regenerative fuel cells for space energy storage: a comparison to battery systems, 307
- Stationary applications**  
 gelled-electrolyte lead/acid batteries for stationary and traction applications, 187
- Storage batteries**  
 storage batteries for submarines (extended abstract), 213
- Submarine(s)**  
 submarine battery technology — an aid to electric vehicle battery design?, 113  
 storage batteries for submarines (extended abstract), 213
- Superconductor**  
 high-temperature superconductor,  
 $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  as all-solid-state lithium cell, 361
- Tin**  
 the anodic behaviour of tin and a lead-tin alloy in sulfuric acid, 217
- Traction applications**  
 gelled-electrolyte lead/acid batteries for stationary and traction applications, 187
- Tungsten carbide**  
 activity and corrosion of tungsten carbide recombination electrodes during lead/acid battery operation, 333  
 performance of tungsten carbide recombination electrodes under various operating conditions, 341
- Yttrium**  
 high-temperature superconductor,  
 $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  as all-solid-state lithium cell, 361
- Zinc**  
 cycling behaviour of electrodeposited zinc alloy electrode for secondary lithium batteries, 283