Subject Index of Volume 42

Age hardening age hardening of a Pb-0.1wt.%Ca-0.3wt.%Sn alloy and the effects of heat during battery manufacturing on this process, 35 Allovs age hardening of a Pb-0.1wt.%Ca-0.3wt.%Sn alloy and the effects of heat during battery manufacturing on this process. 35 in situ Fourier-transform infrared investigations of lead electrodes in sulfuric acid: formation of lead sulfate on lead and lead alloys. 137 Aluminium anodic dissolution of aluminium in nonaqueous electrolytes, 377 Anodic dissolution anodic dissolution of aluminium in nonaqueous electrolytes, 377 Antimony low-antimony lead-alloy expanded grids. Preliminary performance data, 47 influence of antimony on the electrochemical behaviour and the structure of the lead dioxide active mass of lead/acid batteries, 71 Automotive batteries how the systems approach is determining automotive battery design and use, 185 intelligent automotive battery systems, 195 microporous polyethylene separators today and tomorrow. Separator development trends for modern automotive batteries, 211 improvement of bench life-tests for automotive batteries, 231 development of automotive battery systems capable of surviving modern underhood environments, 237 development of a valve-regulated lead/ acid battery for automotive use, 247

Battery design how the systems approach is determining automotive battery design and use. 185 Battery grids a photocurrent imaging study of the distribution of lead monoxide in corrosion layers on lead/acid battery grids, 119 Battery manufacture age hardening of a Pb-0.1wt.%Ca-0.3wt.%Sn alloy and the effects of heat during battery manufacturing on this process, 35 present and future of lead/acid battery manufacture in the Commonwealth of Independent States (formerly the USSR), 277 Battery performance on the hydrogen balance in sealed lead/ acid batteries and its effect on battery performance, 89 Battery plates pulsed-current formation of tetrabasic lead sulfate in cured lead/acid battery plates, 55 Battery technology energy storage and the environment: the role of battery technology, 1 Bench life-tests improvement of bench life-tests for automotive batteries, 231 Calcium age hardening of a Pb-0.1wt.%Ca-0.3wt.%Sn alloy and the effects of heat during battery manufacturing on this process, 35

techniques to reduce failure in leadcalcium batteries using expanded type grids, 221

Corrosion layers

a photocurrent imaging study of the distribution of lead monoxide in corrosion layers on lead/acid battery grids, 119 Electric vehicles

- electric vehicles are they a realistic option for the future?, 291
- Electrochemical behaviour
 - influence of antimony on the electrochemical behaviour and the structure of the lead dioxide active mass of lead/acid batteries, 71
- Electrochemistry
 - investigations into the electrochemistry of recombinant, sealed lead/acid batteries, 165
- Electrodes
 - calculation of potential distribution and voltage drop at electrodes on highrate discharge: literature survey and computer-aided approach, 103
 - in situ Fourier-transform infrared investigations of lead electrodes in sulfuric acid: formation of lead sulfate on lead and lead alloys, 137

Electrolytes

- anodic dissolution of aluminium in nonaqueous electrolytes, 377 feasibility study of sulphone-based elec-
- trolytes for a medium-temperature reserve cell concept, 389 Electrolytic manganese dioxide
- preparation and properties of electrolytic manganese dioxide: a review,
 - 335
- Energy storage
 - energy storage and the environment: the role of battery technology, 1
- Environment
 - energy storage and the environment: the role of battery technology, 1

Expanded type grids

techniques to reduce failure in leadcalcium batteries using expanded type grids, 221

FT-IR spectroscopy

- in situ Fourier-transform infrared investigations of lead electrodes in sulfuric acid: formation of lead sulfate on lead and lead alloys, 137
- Hydrogen balance
 - on the hydrogen balance in sealed lead/ acid batteries and its effect on battery performance, 89

Impedance measurements

system noise as a signal source for impedance measurements on batteries connected to operating equipment, 381

- Isasmelt process
 - lead/acid battery recycling and the new Isasmelt process, 299

Lead

- use of secondary lead for new generations of lead/acid batteries, 11
- metallurgy of recycled lead for recombinant batteries, 25
- age hardening of a Pb-0.1wt.%Ca-0.3wt.%Sn alloy and the effects of heat during battery manufacturing on this process, 35
- in situ Fourier-transform infrared investigations of lead electrodes in sulfuric acid: formation of lead sulfate on lead and lead alloys, 137
- Lead/acid batteries
 - use of secondary lead for new generations of lead/acid batteries, 11
 - pulsed-current formation of tetrabasic lead sulfate in cured lead/acid battery plates, 55
 - influence of antimony on the electrochemical behaviour and the structure of the lead dioxide active mass of lead/acid batteries, 71
 - on the hydrogen balance in sealed lead/ acid batteries and its effect on battery performance, 89
 - a photocurrent imaging study of the distribution of lead monoxide in corrosion layers on lead/acid battery grids, 119
 - meeting European requirements with advanced designs of valve-regulated lead/acid batteries, 147
 - influence of separator structure on the performance of valve-regulated batteries, 155

investigations into the electrochemistry of recombinant, sealed lead/acid batteries, 165

- valve-regulated lead/acid batteries with granular silica, 173
- development of a valve-regulated lead/ acid battery for automotive use, 247
- present and future of lead/acid battery manufacture in the Commonwealth

of Independent States (formerly the USSR), 277

- towards the year 2000 the prospects for lead/acid batteries in Europe, 283
- lead/acid battery recycling and the new Isasmelt process, 299
- recycling the plastic components in today's lead/acid battery, 315
- closed loop recycling of lead/acid batteries, 331
- premature capacity loss (PCL) of the positive lead/acid battery plate: a new concept to describe the phenomenon, 345
- system noise as a signal source for impedance measurements on batteries connected to operating equipment, 381
- Lead/acid battery industry
 - the European lead/acid battery industry, 261
 - the changing structure of the lead/acid battery industry in Europe, 269
- Lead alloys
 - low-antimony lead-alloy expanded grids. Preliminary performance data, 47
- Lead-calcium batteries
 - techniques to reduce failure in leadcalcium batteries using expanded type grids, 221
- Lead dioxide
 - influence of antimony on the electrochemical behaviour and the structure of the lead dioxide active mass of lead/acid batteries, 71
- Lead monoxide
 - a photocurrent imaging study of the distribution of lead monoxide in corrosion layers on lead/acid battery grids, 119
- Lead sulfate
 - pulsed-current formation of tetrabasic lead sulfate in cured lead/acid battery plates, 55

Lithium cells

- feasibility study of sulphone-based electrolytes for a medium-temperature reserve cell concept, 389
- Manganese dioxide
 - preparation and properties of electrolytic manganese dioxide: a review, 335

- Operating conditions influence of the operating conditions and of the ageing upon the electrochemical performance of a phosphoric acid fuel cell, 365
- Phosphoric acid fuel cells influence of the operating conditions and of the ageing upon the electrochemical performance of a phosphoric acid fuel cell, 365
- Photocurrent imaging a photocurrent imaging study of the distribution of lead monoxide in corrosion layers on lead/acid battery grids, 119
- Plastic components recycling the plastic components in today's lead/acid battery, 315
- Polyethylene
 - microporous polyethylene separators today and tomorrow. Separator development trends for modern automotive batteries, 211
- Potential distribution
 - calculation of potential distribution and voltage drop at electrodes on highrate discharge: literature survey and computer-aided approach, 103
- Premature capacity loss premature capacity loss (PCL) of the positive lead/acid battery plate: a new concept to describe the phenomenon, 345
- Pulsed-current formation pulsed-current formation of tetrabasic lead sulfate in cured lead/acid battery plates, 55
- Recombinant batteries metallurgy of recycled lead for recombinant batteries, 25

Recycling

- lead/acid battery recycling and the new Isasmelt process, 299
- recycling the plastic components in today's lead/acid battery, 315 closed loop recycling of lead/acid batteries, 331
- Scrap batteries new approaches to the collection of scrap batteries, 319

Separators

microporous polyethylene separators – today and tomorrow. Separator development trends for modern automotive batteries, 211

Separator structure

influence of separator structure on the performance of valve-regulated batteries, 155

Silica

valve-regulated lead/acid batteries with granular silica, 173

Sulphones

feasibility study of sulphone-based electrolytes for a medium-temperature reserve cell concept, 389

System noise

system noise as a signal source for impedance measurements on batteries connected to operating equipment, 381

Telecommunications

system noise as a signal source for impedance measurements on

batteries connected to operating equipment, 381

age hardening of a Pb-0.1wt.%Ca-0.3wt.%Sn alloy and the effects of heat during battery manufacturing on this process, 35

Valve-regulated lead/acid batteries (VRLA) meeting European requirements with advanced designs of valve-regulated lead/acid batteries, 147

influence of separator structure on the performance of valve-regulated batteries, 155

- valve-regulated lead/acid batteries with granular silica, 173
- development of a valve-regulated lead/ acid battery for automotive use, 247
- Voltage drop

calculation of potential distribution and voltage drop at electrodes on highrate discharge: literature survey and computer-aided approach, 103