

## Subject Index of Volume 87

- Accelerated rate calorimeter  
Li-ion batteries; Electrochemical measurements (Al Hallaj, S. (87) 186)
- a.c. impedance  
State-of-charge; Primary batteries; Secondary batteries (Rodrigues, S. (87) 12)
- AC impedance spectroscopy  
Solid oxide fuel cells; Strontium-doped lanthanum manganites ( $\text{La}_{0.9}\text{Sr}_{0.1}\text{MnO}_3$ ); Electrochemical  $\text{O}_2$  reduction (Choi, J.H. (87) 92)
- Alkaline cells  
Statistical analysis; Randomness; Uncertainties (Zhang, Y. (87) 174)
- Alkaline fuel cell  
 $\text{Co}_3\text{Mo}$ ;  $\text{Co}_7\text{Mo}_6$  intermetallic compounds; Hydrogen electrode; Corrosion; Electrochemical stability (Lee, C.R. (87) 64)  
Hydrogen oxidation; Platinum; Palladium; Bimetal; Raney Ni (Kiros, Y. (87) 101)
- Amorphous phase  
 $\text{Mg}_2\text{Ni}$  phase; Nanocrystalline; Zr addition; Discharge capacity; Hydrogen-storage (Goo, N.H. (87) 118)
- Anode  
SOFC; Structural parameter; Numerical simulation; Diffusion; Reforming kinetics (Lehnert, W. (87) 57)
- Anodes  
Microcracking; Fracture toughness; Li-alloys; Indentation; Brittle (Wolfenstine, J. (87) 1)
- Artificial neural network  
Battery model; Available capacity; Lead–acid batteries; Electric vehicles (Chan, C.C. (87) 201)
- Autothermal reforming  
Catalytic partial oxidation; Methane; Syn-gas (Freni, S. (87) 28)
- Available capacity  
Artificial neural network; Battery model; Lead–acid batteries; Electric vehicles (Chan, C.C. (87) 201)
- Batteries  
Dynamic performance; Nickel chloride; Specific energy; Specific power (Prakash, J. (87) 195)
- Battery model  
Artificial neural network; Available capacity; Lead–acid batteries; Electric vehicles (Chan, C.C. (87) 201)
- Battery performance  
Birnessite; Sol–gel synthesis; Hydroxylamine–permanganate redox reaction; EPR; Magnetoresistance (Renuka, R. (87) 144)
- Bimetal  
Hydrogen oxidation; Platinum; Palladium; Raney Ni; Alkaline fuel cell (Kiros, Y. (87) 101)
- Birnessite  
Sol–gel synthesis; Hydroxylamine–permanganate redox reaction; Battery performance; EPR; Magnetoresistance (Renuka, R. (87) 144)
- Brittle  
Microcracking; Fracture toughness; Li-alloys; Anodes; Indentation (Wolfenstine, J. (87) 1)
- Capacity  
RAM batteries; Zinc; Manganese; Electrolyte; Rechargeability (Shen, Y. (87) 162)
- Catalytic partial oxidation  
Autothermal reforming; Methane; Syn-gas (Freni, S. (87) 28)
- Cell voltage profile  
Molten carbonate fuel cell (MCFC); Large stack; Numerical analysis; Temperature profile; Electric circuit model (Yoshida, F. (87) 21)
- Charge–discharge studies  
Prussian blue; Solid-state secondary cell (Jayalakshmi, M. (87) 212)
- Charging of lead–acid batteries  
Lead–acid batteries; Fast charge; PCL effect; Influence of Sb on the PCL effect; Mechanism of fast charge processes (Pavlov, D. (87) 39)
- $\text{Co}_3\text{Mo}$   
Alkaline fuel cell;  $\text{Co}_7\text{Mo}_6$  intermetallic compounds; Hydrogen electrode; Corrosion; Electrochemical stability (Lee, C.R. (87) 64)
- $\text{Co}_7\text{Mo}_6$  intermetallic compounds  
Alkaline fuel cell;  $\text{Co}_3\text{Mo}$ ; Hydrogen electrode; Corrosion; Electrochemical stability (Lee, C.R. (87) 64)
- Corrosion  
Alkaline fuel cell;  $\text{Co}_3\text{Mo}$ ;  $\text{Co}_7\text{Mo}_6$  intermetallic compounds; Hydrogen electrode; Electrochemical stability (Lee, C.R. (87) 64)  
Pulverization; Metal hydride electrodes (Durairajan, A. (87) 84)
- Cross-linked polymer  
Ionic conductivity; Glass transition temperature; Cross-linking spacer (Moon, S.I. (87) 223)
- Cross-linking spacer  
Cross-linked polymer; Ionic conductivity; Glass transition temperature (Moon, S.I. (87) 223)
- Crystallographic structure  
Nickel hydroxide electrode; Vibrational spectroscopy (Deabate, S. (87) 125)
- Cycle life  
Lithium-ion cells; Electrolyte; Low-temperature performance (Sazhin, S.V. (87) 112)
- Diethyl carbonate  
Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Propylene carbonate; PVDF; Li-ion cells;  $\text{LiAsF}_6$ ;  $\text{LiPF}_6$  (Shiao, H.-C. (87) 167)
- Diffusion  
SOFC; Anode; Structural parameter; Numerical simulation; Reforming kinetics (Lehnert, W. (87) 57)
- Dimethyl carbonate  
Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells;  $\text{LiAsF}_6$ ;  $\text{LiPF}_6$  (Shiao, H.-C. (87) 167)
- 2- $\beta$ -Dinitrostyrene cathode  
2- $\beta$ -Dinitrostyrene organic battery (Renuka, R. (87) 4)

- 2- $\beta$ -Dinitrostyrene organic battery  
 2- $\beta$ -Dinitrostyrene cathode (Renuka, R. (87) 4)
- Direct methanol fuel cell  
 Dynamic response; Transient behaviour (Argyropoulos, P. (87) 153)
- Discharge capacity  
 $Mg_2Ni$  phase; Nanocrystalline; Zr addition; Amorphous phase; Hydrogen-storage (Goo, N.H. (87) 118)
- Dynamic performance  
 Batteries; Nickel chloride; Specific energy; Specific power (Prakash, J. (87) 195)
- Dynamic response  
 Direct methanol fuel cell; Transient behaviour (Argyropoulos, P. (87) 153)
- Electric circuit model  
 Molten carbonate fuel cell (MCFC); Large stack; Numerical analysis; Temperature profile; Cell voltage profile (Yoshida, F. (87) 21)
- Electric vehicles  
 Artificial neural network; Battery model; Available capacity; Lead-acid batteries (Chan, C.C. (87) 201)
- Electrochemical measurements  
 Li-ion batteries; Accelerated rate calorimeter (Al Hallaj, S. (87) 186)
- Electrochemical  $O_2$  reduction  
 Solid oxide fuel cells; Strontium-doped lanthanum manganites ( $La_{0.9}Sr_{0.1}MnO_3$ ); AC impedance spectroscopy (Choi, J.H. (87) 92)
- Electrochemical stability  
 Alkaline fuel cell;  $Co_3Mo$ ;  $Co_7Mo_6$  intermetallic compounds; Hydrogen electrode; Corrosion (Lee, C.R. (87) 64)
- Electrolyte  
 Lithium-ion cells; Low-temperature performance; Cycle life (Sazhin, S.V. (87) 112)  
 RAM batteries; Zinc; Manganese; Capacity; Rechargeability (Shen, Y. (87) 162)
- Electrolytic manganese dioxide  
 Titanium doping (Nartey, V.K. (87) 205)
- Electrowinning  
 Lead; Hydrogen diffusion anode; Fluoborate bath (Expósito, E. (87) 137)
- EPR  
 Birnessite; Sol-gel synthesis; Hydroxylamine-permanganate redox reaction; Battery performance; Magnetoresistance (Renuka, R. (87) 144)
- Ethylene carbonate  
 Low temperature electrolytes; Methyl acetate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells;  $LiAsF_6$ ;  $LiPF_6$  (Shiao, H.-C. (87) 167)
- Ethylmethyl carbonate  
 Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells;  $LiAsF_6$ ;  $LiPF_6$  (Shiao, H.-C. (87) 167)
- Fast charge  
 Lead-acid batteries; Charging of lead-acid batteries; PCL effect; Influence of Sb on the PCL effect; Mechanism of fast charge processes (Pavlov, D. (87) 39)
- Fluoborate bath  
 Lead; Electrowinning; Hydrogen diffusion anode (Expósito, E. (87) 137)
- Fracture toughness  
 Microcracking; Li-alloys; Anodes; Indentation; Brittle (Wolfenstine, J. (87) 1)
- Gel polymer electrolyte  
 Lithium-cobalt oxide; Lithium-ion polymer battery; Mesophase carbon fiber; Poly(ethylene-co-methyl acrylate) (Kim, D.-W. (87) 78)
- Glass transition temperature  
 Cross-linked polymer; Ionic conductivity; Cross-linking spacer (Moon, S.I. (87) 223)
- Hydrogen diffusion anode  
 Lead; Electrowinning; Fluoborate bath (Expósito, E. (87) 137)
- Hydrogen electrode  
 Alkaline fuel cell;  $Co_3Mo$ ;  $Co_7Mo_6$  intermetallic compounds; Corrosion; Electrochemical stability (Lee, C.R. (87) 64)
- Hydrogen oxidation  
 Platinum; Palladium; Bimetal; Raney Ni; Alkaline fuel cell (Kiros, Y. (87) 101)
- Hydrogen-storage  
 $Mg_2Ni$  phase; Nanocrystalline; Zr addition; Amorphous phase; Discharge capacity (Goo, N.H. (87) 118)
- Hydroxylamine-permanganate redox reaction  
 Birnessite; Sol-gel synthesis; Battery performance; EPR; Magnetoresistance (Renuka, R. (87) 144)
- Impedance  
 Lithium-ion (Nagasubramanian, G. (87) 226)
- Indentation  
 Microcracking; Fracture toughness; Li-alloys; Anodes; Brittle (Wolfenstine, J. (87) 1)
- Influence of Sb on the PCL effect  
 Lead-acid batteries; Charging of lead-acid batteries; Fast charge; PCL effect; Mechanism of fast charge processes (Pavlov, D. (87) 39)
- Ionic conductivity  
 Cross-linked polymer; Glass transition temperature; Cross-linking spacer (Moon, S.I. (87) 223)
- Large stack  
 Molten carbonate fuel cell (MCFC); Numerical analysis; Temperature profile; Electric circuit model; Cell voltage profile (Yoshida, F. (87) 21)
- Lead  
 Electrowinning; Hydrogen diffusion anode; Fluoborate bath (Expósito, E. (87) 137)
- Lead-acid batteries  
 Charging of lead-acid batteries; Fast charge; PCL effect; Influence of Sb on the PCL effect; Mechanism of fast charge processes (Pavlov, D. (87) 39)  
 Artificial neural network; Battery model; Available capacity; Electric vehicles (Chan, C.C. (87) 201)
- Li-alloys  
 Microcracking; Fracture toughness; Anodes; Indentation; Brittle (Wolfenstine, J. (87) 1)
- $LiAsF_6$   
 Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells;  $LiPF_6$  (Shiao, H.-C. (87) 167)
- Li-ion batteries  
 Electrochemical measurements; Accelerated rate calorimeter (Al Hallaj, S. (87) 186)
- Li-ion cells  
 Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF;  $LiAsF_6$ ;  $LiPF_6$  (Shiao, H.-C. (87) 167)
- $LiMn_2O_4$   
 Lithium; Thin film; Sol-gel; Microbattery; Rechargeability (Park, Y.J. (87) 69)
- $LiPF_6$   
 Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells;  $LiAsF_6$  (Shiao, H.-C. (87) 167)

- Lithium**  
 LiMn<sub>2</sub>O<sub>4</sub>; Thin film; Sol–gel; Microbattery; Rechargeability (Park, Y.J. (87) 69)  
 Lithium-ion batteries; Tin oxide; Thin film (Ayouchi, R. (87) 106)
- Lithium–cobalt oxide**  
 Gel polymer electrolyte; Lithium-ion polymer battery; Mesophase carbon fiber; Poly(ethylene-*co*-methyl acrylate) (Kim, D.-W. (87) 78)
- Lithium-ion**  
 Impedance (Nagasubramanian, G. (87) 226)
- Lithium-ion batteries**  
 Lithium; Tin oxide; Thin film (Ayouchi, R. (87) 106)
- Lithium-ion cells**  
 Electrolyte; Low-temperature performance; Cycle life (Sazhin, S.V. (87) 112)
- Lithium-ion polymer battery**  
 Gel polymer electrolyte; Lithium–cobalt oxide; Mesophase carbon fiber; Poly(ethylene-*co*-methyl acrylate) (Kim, D.-W. (87) 78)
- Low temperature electrolytes**  
 Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells; LiAsF<sub>6</sub>; LiPF<sub>6</sub> (Shiao, H.-C. (87) 167)
- Low-temperature performance**  
 Lithium-ion cells; Electrolyte; Cycle life (Sazhin, S.V. (87) 112)
- Magneto-resistance**  
 Birnessite; Sol–gel synthesis; Hydroxylamine–permanganate redox reaction; Battery performance; EPR (Renuka, R. (87) 144)
- Manganese**  
 RAM batteries; Zinc; Capacity; Electrolyte; Rechargeability (Shen, Y. (87) 162)
- Mechanism of fast charge processes**  
 Lead–acid batteries; Charging of lead–acid batteries; Fast charge; PCL effect; Influence of Sb on the PCL effect (Pavlov, D. (87) 39)
- Mesophase carbon fiber**  
 Gel polymer electrolyte; Lithium–cobalt oxide; Lithium-ion polymer battery; Poly(ethylene-*co*-methyl acrylate) (Kim, D.-W. (87) 78)
- Metal hydride electrodes**  
 Pulverization; Corrosion (Durairajan, A. (87) 84)
- Methane**  
 Autothermal reforming; Catalytic partial oxidation; Syn-gas (Freni, S. (87) 28)
- Methyl acetate**  
 Low temperature electrolytes; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells; LiAsF<sub>6</sub>; LiPF<sub>6</sub> (Shiao, H.-C. (87) 167)
- Mg<sub>2</sub>Ni phase**  
 Nanocrystalline; Zr addition; Amorphous phase; Discharge capacity; Hydrogen-storage (Goo, N.H. (87) 118)
- Microbattery**  
 Lithium; LiMn<sub>2</sub>O<sub>4</sub>; Thin film; Sol–gel; Rechargeability (Park, Y.J. (87) 69)
- Microcracking**  
 Fracture toughness; Li-alloys; Anodes; Indentation; Brittle (Wolfens-tine, J. (87) 1)
- Molten carbonate fuel cell (MCFC)**  
 Large stack; Numerical analysis; Temperature profile; Electric circuit model; Cell voltage profile (Yoshida, F. (87) 21)
- Nanocrystalline**  
 Mg<sub>2</sub>Ni phase; Zr addition; Amorphous phase; Discharge capacity; Hydrogen-storage (Goo, N.H. (87) 118)
- Nickel chloride**  
 Dynamic performance; Batteries; Specific energy; Specific power (Prakash, J. (87) 195)
- Nickel hydroxide electrode**  
 Crystallographic structure; Vibrational spectroscopy (Deabate, S. (87) 125)
- Numerical analysis**  
 Molten carbonate fuel cell (MCFC); Large stack; Temperature profile; Electric circuit model; Cell voltage profile (Yoshida, F. (87) 21)
- Numerical simulation**  
 SOFC; Anode; Structural parameter; Diffusion; Reforming kinetics (Lehnert, W. (87) 57)
- Palladium**  
 Hydrogen oxidation; Platinum; Bimetal; Raney Ni; Alkaline fuel cell (Kiros, Y. (87) 101)
- PCL effect**  
 Lead–acid batteries; Charging of lead–acid batteries; Fast charge; Influence of Sb on the PCL effect; Mechanism of fast charge processes (Pavlov, D. (87) 39)
- Platinum**  
 Hydrogen oxidation; Palladium; Bimetal; Raney Ni; Alkaline fuel cell (Kiros, Y. (87) 101)
- Poly(ethylene-*co*-methyl acrylate)**  
 Gel polymer electrolyte; Lithium–cobalt oxide; Lithium-ion polymer battery; Mesophase carbon fiber (Kim, D.-W. (87) 78)
- Polymer electrolyte**  
 Poly(vinyl chloride); XRD, IR and conductivity studies (Rajendran, S. (87) 218)
- Poly(vinyl chloride)**  
 Polymer electrolyte; XRD, IR and conductivity studies (Rajendran, S. (87) 218)
- Primary batteries**  
 a.c. impedance; State-of-charge; Secondary batteries (Rodrigues, S. (87) 12)
- Propylene carbonate**  
 Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; PVDF; Li-ion cells; LiAsF<sub>6</sub>; LiPF<sub>6</sub> (Shiao, H.-C. (87) 167)
- Prussian blue**  
 Solid-state secondary cell; Charge–discharge studies (Jayalakshmi, M. (87) 212)
- Pulverization**  
 Corrosion; Metal hydride electrodes (Durairajan, A. (87) 84)
- PVDF**  
 Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Toluene; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; Li-ion cells; LiAsF<sub>6</sub>; LiPF<sub>6</sub> (Shiao, H.-C. (87) 167)
- RAM batteries**  
 Zinc; Manganese; Capacity; Electrolyte; Rechargeability (Shen, Y. (87) 162)
- Randomness**  
 Alkaline cells; Statistical analysis; Uncertainties (Zhang, Y. (87) 174)
- Raney Ni**  
 Hydrogen oxidation; Platinum; Palladium; Bimetal; Alkaline fuel cell (Kiros, Y. (87) 101)
- Rechargeability**  
 Lithium; LiMn<sub>2</sub>O<sub>4</sub>; Thin film; Sol–gel; Microbattery (Park, Y.J. (87) 69)  
 RAM batteries; Zinc; Manganese; Capacity; Electrolyte (Shen, Y. (87) 162)
- Reforming kinetics**  
 SOFC; Anode; Structural parameter; Numerical simulation; Diffusion (Lehnert, W. (87) 57)
- Secondary batteries**  
 a.c. impedance; State-of-charge; Primary batteries (Rodrigues, S. (87) 12)

- SOFC  
Anode; Structural parameter; Numerical simulation; Diffusion; Reforming kinetics (Lehnert, W. (87) 57)
- Sol-gel  
Lithium;  $\text{LiMn}_2\text{O}_4$ ; Thin film; Microbattery; Rechargeability (Park, Y.J. (87) 69)
- Sol-gel synthesis  
Birnessite; Hydroxylamine-permanganate redox reaction; Battery performance; EPR; Magnetoresistance (Renuka, R. (87) 144)
- Solid oxide fuel cells  
Strontium-doped lanthanum manganites ( $\text{La}_{0.9}\text{Sr}_{0.1}\text{MnO}_3$ ); AC impedance spectroscopy; Electrochemical  $\text{O}_2$  reduction (Choi, J.H. (87) 92)
- Solid-state secondary cell  
Prussian blue; Charge-discharge studies (Jayalakshmi, M. (87) 212)
- Specific energy  
Dynamic performance; Batteries; Nickel chloride; Specific power (Prakash, J. (87) 195)
- Specific power  
Dynamic performance; Batteries; Nickel chloride; Specific energy (Prakash, J. (87) 195)
- State-of-charge  
a.c. impedance; Primary batteries; Secondary batteries (Rodrigues, S. (87) 12)
- Statistical analysis  
Alkaline cells; Randomness; Uncertainties (Zhang, Y. (87) 174)
- Strontium-doped lanthanum manganites ( $\text{La}_{0.9}\text{Sr}_{0.1}\text{MnO}_3$ )  
Solid oxide fuel cells; AC impedance spectroscopy; Electrochemical  $\text{O}_2$  reduction (Choi, J.H. (87) 92)
- Structural parameter  
SOFC; Anode; Numerical simulation; Diffusion; Reforming kinetics (Lehnert, W. (87) 57)
- Syn-gas  
Autothermal reforming; Catalytic partial oxidation; Methane (Freni, S. (87) 28)
- Temperature profile  
Molten carbonate fuel cell (MCFC); Large stack; Numerical analysis; Electric circuit model; Cell voltage profile (Yoshida, F. (87) 21)
- Thin film  
Lithium;  $\text{LiMn}_2\text{O}_4$ ; Sol-gel; Microbattery; Rechargeability (Park, Y.J. (87) 69)
- Lithium; Lithium-ion batteries; Tin oxide (Ayouchi, R. (87) 106)
- Tin oxide  
Lithium; Lithium-ion batteries; Thin film (Ayouchi, R. (87) 106)
- Titanium doping  
Electrolytic manganese dioxide (Nartey, V.K. (87) 205)
- Toluene  
Low temperature electrolytes; Methyl acetate; Ethylene carbonate; Ethylmethyl carbonate; Dimethyl carbonate; Diethyl carbonate; Propylene carbonate; PVDF; Li-ion cells;  $\text{LiAsF}_6$ ;  $\text{LiPF}_6$  (Shiao, H.-C. (87) 167)
- Transient behaviour  
Direct methanol fuel cell; Dynamic response (Argyropoulos, P. (87) 153)
- Uncertainties  
Alkaline cells; Statistical analysis; Randomness (Zhang, Y. (87) 174)
- Vibrational spectroscopy  
Nickel hydroxide electrode; Crystallographic structure (Deabate, S. (87) 125)
- XRD, IR and conductivity studies  
Polymer electrolyte; Poly(vinyl chloride) (Rajendran, S. (87) 218)
- Zinc  
RAM batteries; Manganese; Capacity; Electrolyte; Rechargeability (Shen, Y. (87) 162)
- Zr addition  
 $\text{Mg}_2\text{Ni}$  phase; Nanocrystalline; Amorphous phase; Discharge capacity; Hydrogen-storage (Goo, N.H. (87) 118)