

Subject Index of Volume 155

- Absorption of hydrogen
Nanostructured material; Metal hydride electrode (Rivera, M.A. (155) 470)
- Activated carbon
Activated carbon; Carbon aerogel; Modification; Surfactant; Electric double layer capacitor (Fang, B. (155) 487)
- Activity
PEM fuel cell; Oxygen reduction; Platinum alloy; Dissolution; Cathode stability (Colón-Mercado, H.R. (155) 253)
- Additive
Nano-carbon; Iron/carbon nanocomposite; Iron–air battery anode (Hang, B.T. (155) 461)
- Alkaline fuel cell
Signal detector; Signal disturbance; Environmental health; Cellular phone (Abdullah, M.O. (155) 311)
- Alternative fuel
Fuel cells; Hydrogen; Methanol; DME; Reforming (Semelsberger, T.A. (155) 340)
- Amide
Complex hydrides; Lithium; Borohydride; Boronitride; Hydrogen storage (Nakamori, Y. (155) 447)
- Amorphous silicon
Amorphous silicon; Thin film; Deposition temperature; Interdiffusion (Moon, T. (155) 391)
- Anode catalyst
Direct methanol fuel cell; Pt–Ru alloy; Synthesis method; Carbon support; Combinatorial method (Liu, H. (155) 95)
- Anodic stability
Oxygen reduction; Ruthenium; Selenium; RuO₂ (Schulenburg, H. (155) 47)
- Au–Pt/ZnO catalyst
Selective oxidation CO; Selectivity; Hydrogen; Kinetics (Wang, Y.H. (155) 440)
- Autonomous temperature
Direct methanol fuel cell; Stack; Voltage distribution; Flow direction; Load following (Kim, D. (155) 203)
- Batteries
Polymer electrolyte; Biodegradation; Poly-ε-caprolactone; Electrochemical devices (Fonseca, C.P. (155) 381)
- Battery
Polyelectrolyte; Polyethylene oxide; Polyaniline, dc conductivity; Electrochemical cell (Devendrappa, H. (155) 368)
- Battery hazard
Lithium-ion batteries; Safety; Non-flammable electrolytes; Thermal runaway (Balakrishnan, P.G. (155) 401)
- Battery testing
Battery testing; State-of-charge; Modelling; Lead-acid battery; Lithium-ion battery (Doerffel, D. (155) 395)
- Bifunctional oxygen electrode
Bifunctional oxygen electrode; Electrochemical oxygen reduction; Oxygen evolution; Reversible fuel cell (Jörissen, L. (155) 23)
- Biodegradation
Polymer electrolyte; Batteries; Poly-ε-caprolactone; Electrochemical devices (Fonseca, C.P. (155) 381)
- Bipolar battery
Thermal behaviour; Modelling; Metal hydride; Hybrid vehicle; Finite element methods (Harmel, J. (155) 88)
- Bipolar plate
Polymer electrolyte membrane fuel cell; Membrane electrode assembly (Kumar, A. (155) 264)
- Borohydride
Borohydride; Electrocatalysts; Fuel cell; Hydrogen membranes (de Leon, C.P. (155) 172)
- Borohydride
Complex hydrides; Lithium; Amide; Boronitride; Hydrogen storage (Nakamori, Y. (155) 447)
- Boronitride
Complex hydrides; Lithium; Borohydride; Amide; Hydrogen storage (Nakamori, Y. (155) 447)
- Calendar life
Impedance rise; Lithium-ion; Cycle life (Bloom, I. (155) 415)
- Carbon aerogel
Activated carbon; Modification; Surfactant; Electric double layer capacitor (Fang, B. (155) 487)
- Carbon formation
Solid oxide fuel cell; Hydrocarbon fuels; Gas-phase pyrolysis; Ceria; Yttria-stabilized zirconia (Kim, T. (155) 231)
- Carbon monoxide
Polymer electrolyte fuel cell; Tin oxide; Electrocatalyst (Matsui, T. (155) 152)
- Carbon support
Direct methanol fuel cell; Anode catalyst; Pt–Ru alloy; Synthesis method; Combinatorial method (Liu, H. (155) 95)
- Catalyst
Lithium borohydride; Chemical hydride; Hydrogen generation; Nano-Pt; High-resolution transmission electron microscopy (Kojima, Y. (155) 325)
- Catalyst
Solid oxide fuel cells; Hydrocarbons; *Iso*-octane; Partial oxidation (Zhan, Z. (155) 353)
- Cathode
Screen printing; Thick films; Lithium-ion batteries; LiCoO₂ (Lee, S.-T. (155) 375)
- Cathode stability
PEM fuel cell; Oxygen reduction; Platinum alloy; Dissolution; Activity (Colón-Mercado, H.R. (155) 253)
- Cell assembly method
Hydrogen fuel; Cell configuration; Cell materials; Temperature control method; JARI's standard single cell (Hashimasa, Y. (155) 182)
- Cell configuration
Hydrogen fuel; Cell materials; Cell assembly method; Temperature control method; JARI's standard single cell (Hashimasa, Y. (155) 182)
- Cell materials
Hydrogen fuel; Cell configuration; Cell assembly method; Temperature control method; JARI's standard single cell (Hashimasa, Y. (155) 182)

- Cell performance
Electrode; Current-collecting layer; Polarization loss; Solid oxide fuel cell; Power density (Jung, H.Y. (155) 145)
- Cell performance
Fuel cell; PEMFC; Flow field design; Rib and channel geometry (Scholta, J. (155) 66)
- Cellular phone
Signal detector; Alkaline fuel cell; Signal disturbance; Environmental health (Abdullah, M.O. (155) 311)
- Ceria
Solid oxide full cell; Hydrocarbon fuels; Carbon formation; Gas-phase pyrolysis; Yttria-stabilized zirconia (Kim, T. (155) 231)
- Charge distribution
Fuel cell; Gas diffusion medium; Thin conducting inclusion; Heterogeneous structure (Lavrov, N. (155) 239)
- Charge-discharge process
Rechargeable cell; Electrochemical sensor; Orange dye; Organic semiconductor; Energy storage and conversion (Karimov, K.S. (155) 475)
- Chemical hydride
Lithium borohydride; Hydrogen generation; Catalyst; Nano-Pt; High-resolution transmission electron microscopy (Kojima, Y. (155) 325)
- Chemical interaction
SOFC stacks; Glass-ceramic sealants; Interconnect materials; Ferritic high-chromium steels; Short-circuiting (Batfalsky, P. (155) 128)
- Combinatorial method
Direct methanol fuel cell; Anode catalyst; Pt-Ru alloy; Synthesis method; Carbon support (Liu, H. (155) 95)
- Complex hydrides
Complex hydrides; Lithium; Borohydride; Amide; Boronitride; Hydrogen storage (Nakamori, Y. (155) 447)
- Composite support
Polyaniline; SWNT; Methanol electrooxidation; Pt particles (Wu, G. (155) 118)
- Conducting polymers
Conducting polymers; Polypyrrole; Electrocatalysis; Methanol oxidation; Fuel cells (Radhakrishnan, S. (155) 157)
- Copper
Steam reforming; Internal reforming; Solid oxide fuel cell; Nickel/zirconia anode; Wet impregnation (Boder, M. (155) 13)
- Copper oxide
Copper oxide; Reactive sputtering; Thin films; Microbatteries (Souza, E.A. (155) 358)
- Corrosion rate
Pb-Sn alloy; Potentiodynamic polarization (Xu, J. (155) 420)
- Covalent cross-linking
PEEK-sulfochloride; Reduction; PEEK-sulfinate; TGA; DMFC (Zhang, W. (155) 3)
- Cross transport effects
Fuel cell; PEMFC; Flow field design; Rib and channel geometry (Scholta, J. (155) 60)
- Crystal structure
Hydrogen storage alloy; Ni-MH battery; Electrochemical property (Tang, R. (155) 456)
- Current distribution
PEFC; Humidity distribution (Nishikawa, H. (155) 213)
- Current-collecting layer
Electrode; Polarization loss; Cell performance; Solid oxide fuel cell; Power density (Jung, H.Y. (155) 145)
- Cycle life
Impedance rise; Lithium-ion; Calendar life (Bloom, I. (155) 415)
- DEMS
Ethylene glycol oxidation; Supported catalyst; Pt/Vulcan; PtRu/Vulcan; Pt₃Sn/Vulcan (Wang, H. (155) 33)
- Deposition temperature
Amorphous silicon; Thin film; Interdiffusion (Moon, T. (155) 391)
- Direct methanol fuel cell
Direct methanol fuel cell; Anode catalyst; Pt-Ru alloy; Synthesis method; Carbon support; Combinatorial method (Liu, H. (155) 95)
- Direct methanol fuel cell
Direct methanol fuel cell; Stack; Voltage distribution; Flow direction; Autonomous temperature; Load following (Kim, D. (155) 203)
- Direct methanol fuel cells
Pt₇₀Ni₃₀/C alloy; Oxygen reduction (Antolini, E. (155) 161)
- Direct sodium borohydride fuel cells
Sodium borohydride; Hydrolysis reaction; Proton exchange membrane fuel cells; Hydrogen (Wee, J.-H. (155) 329)
- Dissolution
PEM fuel cell; Oxygen reduction; Platinum alloy; Cathode stability; Activity (Colón-Mercado, H.R. (155) 253)
- DME
Fuel cells; Hydrogen; Methanol; Alternative fuel; Reforming (Semelsberger, T.A. (155) 340)
- DMFC
PEEK-sulfochloride; Reduction; PEEK-sulfinate; Covalent cross-linking; TGA (Zhang, W. (155) 3)
- DMFC
Polymer electrolyte fuel cell; Micro channel; Micro fuel cell (Wong, C.W. (155) 291)
- Dynamic
PEFC; Model; Heat; System (Graf, C. (155) 52)
- Electric double layer capacitor
Activated carbon; Carbon aerogel; Modification; Surfactant (Fang, B. (155) 487)
- Electric vehicle
Electric vehicle; Fuel cell; Hybrid power system (Jia, Y. (155) 319)
- Electrical contact
Solid oxide fuel cell; Interconnect; Perovskite (Yang, Z. (155) 246)
- Electrocatalysis
Conducting polymers; Polypyrrole; Methanol oxidation; Fuel cells (Radhakrishnan, S. (155) 157)
- Electrocatalyst
Polymer electrolyte fuel cell; Tin oxide; Carbon monoxide (Matsui, T. (155) 152)
- Electrocatalysts
Borohydride; Fuel cell; Hydrogen membranes (de Leon, C.P. (155) 172)
- Electrochemical cell
Polyelectrolyte; Polyethylene oxide; Polyaniline, dc conductivity; Battery (Devendrappa, H. (155) 368)
- Electrochemical devices
Polymer electrolyte; Batteries; Biodegradation; Poly-ε-caprolactone (Fonseca, C.P. (155) 381)
- Electrochemical oxygen reduction
Bifunctional oxygen electrode; Oxygen evolution; Reversible fuel cell (Jörissen, L. (155) 23)
- Electrochemical property
Hydrogen storage alloy; Ni-MH battery; Crystal structure (Tang, R. (155) 456)
- Electrochemical sensor
Rechargeable cell; Orange dye; Charge-discharge process; Organic semiconductor; Energy storage and conversion (Karimov, K.S. (155) 475)
- Electrode
Electrode; Current-collecting layer; Polarization loss; Cell performance; Solid oxide fuel cell; Power density (Jung, H.Y. (155) 145)
- Electrolysis
Electrolysis; Hydrogen; Wind energy; Sliding mode control; Power limiting (De Battista, H. (155) 478)
- Energy efficiency
Fuel cell vehicle; Internal combustion engine vehicle; Life cycle analysis; Greenhouse gas emissions (Zamel, N. (155) 297)
- Energy storage and conversion
Rechargeable cell; Electrochemical sensor; Orange dye; Charge-discharge process; Organic semiconductor (Karimov, K.S. (155) 475)
- Environmental health
Signal detector; Alkaline fuel cell; Signal disturbance; Cellular phone (Abdullah, M.O. (155) 311)

- Equivalent circuit
Fuel cell; Power; Power density; Fuel efficiency (Benziger, J.B. (155) 272)
- Ethylene glycol oxidation
Ethylene glycol oxidation; Supported catalyst; Pt/Vulcan; PtRu/Vulcan; Pt₃Sn/Vulcan; DEMS (Wang, H. (155) 33)
- Ferritic high-chromium steels
SOFC stacks; Glass–ceramic sealants; Interconnect materials; Chemical interaction; Short-circuiting (Batfalsky, P. (155) 128)
- Finite element methods
Thermal behaviour; Modelling; Bipolar battery; Metal hydride; Hybrid vehicle (Harmel, J. (155) 88)
- Flow direction
Direct methanol fuel cell; Stack; Voltage distribution; Autonomous temperature; Load following (Kim, D. (155) 203)
- Flow field design
Fuel cell; PEMFC; Rib and channel geometry; Cell performance (Scholta, J. (155) 66)
- Flow field design
Fuel cell; PEMFC; Rib and channel geometry; Cross transport effects (Scholta, J. (155) 60)
- Fuel cell
Borohydride; Electrocatalysts; Hydrogen membranes (de Leon, C.P. (155) 172)
- Fuel cell
Electric vehicle; Hybrid power system (Jia, Y. (155) 319)
- Fuel cell
Fuel cell; Gas diffusion medium; Thin conducting inclusion; Charge distribution; Heterogeneous structure (Lavrov, N. (155) 239)
- Fuel cell
Fuel cell; PEMFC; Flow field design; Rib and channel geometry; Cell performance (Scholta, J. (155) 66)
- Fuel cell
Fuel cell; PEMFC; Flow field design; Rib and channel geometry; Cross transport effects (Scholta, J. (155) 60)
- Fuel cell
Fuel cell; PEMFC; MCFC; SOFC (Münch, W. (155) 77)
- Fuel cell
Fuel cell; Power; Equivalent circuit; Power density; Fuel efficiency (Benziger, J.B. (155) 272)
- Fuel cell
Sulfonated polymer; Silica nanocomposites (Su, Y.-H. (155) 111)
- Fuel cell vehicle
Fuel cell vehicle; Internal combustion engine vehicle; Life cycle analysis; Greenhouse gas emissions; Energy efficiency (Zamel, N. (155) 297)
- Fuel cells
Conducting polymers; Polypyrrole; Electrocatalysis; Methanol oxidation (Radhakrishnan, S. (155) 157)
- Fuel cells
Fuel cells; Hydrogen; Methanol; DME; Alternative fuel; Reforming (Semelsberger, T.A. (155) 340)
- Fuel cells
Proton exchange membrane (PEM); Two-phase flow; Mathematical model; Water and thermal management (You, L. (155) 219)
- Fuel efficiency
Fuel cell; Power; Equivalent circuit; Power density (Benziger, J.B. (155) 272)
- Gas diffusion medium
Fuel cell; Thin conducting inclusion; Charge distribution; Heterogeneous structure (Lavrov, N. (155) 239)
- Gas-diffusion electrode
Polyaniline (PANI); Nanofibular; Modified electrode; Proton-exchange membrane fuel cell; Nanostructure; Oxygen reduction reaction (Gharibi, H. (155) 138)
- Gas-phase pyrolysis
Solid oxide full cell; Hydrocarbon fuels; Carbon formation; Ceria; Yttria-stabilized zirconia (Kim, T. (155) 231)
- Gel electrolyte
Gel electrolyte; Ionic liquid; Ionic conductivity; Morpholinium salts; Thermal stability lithium battery (Kim, K.-S. (155) 385)
- Glass–ceramic sealants
SOFC stacks; Interconnect materials; Ferritic high-chromium steels; Chemical interaction; Short-circuiting (Batfalsky, P. (155) 128)
- Greenhouse gas emissions
Fuel cell vehicle; Internal combustion engine vehicle; Life cycle analysis; Energy efficiency (Zamel, N. (155) 297)
- Heat
PEFC; Model; Dynamic; System (Graf, C. (155) 52)
- Heterogeneous structure
Fuel cell; Gas diffusion medium; Thin conducting inclusion; Charge distribution (Lavrov, N. (155) 239)
- High-density
Lithium secondary batteries; Li₄Ti₅O₁₂; Spherical (Gao, J. (155) 364)
- High-resolution transmission electron microscopy
Lithium borohydride; Chemical hydride; Hydrogen generation; Catalyst; Nano-Pt (Kojima, Y. (155) 325)
- History of fuel cell and battery
PoLiFlex™; Lithium ion; Lithium-ion polymer (Ilic, D. (155) 72)
- 24 h power
RAPS; Hybrid system; Off-grid electricity (Moseley, P.T. (155) 83)
- Humidification
PEM fuel cell; Water and thermal management; Mathematical model; Pressure drop (Zhou, B. (155) 190)
- Humidity distribution
PEFC; Current distribution (Nishikawa, H. (155) 213)
- Hybrid power system
Electric vehicle; Fuel cell (Jia, Y. (155) 319)
- Hybrid system
RAPS; 24 h power; Off-grid electricity (Moseley, P.T. (155) 83)
- Hybrid vehicle
Thermal behaviour; Modelling; Bipolar battery; Metal hydride; Finite element methods (Harmel, J. (155) 88)
- Hydrocarbon fuels
Solid oxide full cell; Carbon formation; Gas-phase pyrolysis; Ceria; Yttria-stabilized zirconia (Kim, T. (155) 231)
- Hydrocarbons
Solid oxide fuel cells; Catalyst; *Iso*-octane; Partial oxidation (Zhan, Z. (155) 353)
- Hydrogen
Electrolysis; Wind energy; Sliding mode control; Power limiting (De Battista, H. (155) 478)
- Hydrogen
Fuel cells; Methanol; DME; Alternative fuel; Reforming (Semelsberger, T.A. (155) 340)
- Hydrogen
Selective oxidation CO; Au-Pt/ZnO catalyst; Selectivity; Kinetics (Wang, Y.H. (155) 440)
- Hydrogen
Sodium borohydride; Hydrolysis reaction; Proton exchange membrane fuel cells; Direct sodium borohydride fuel cells (Wee, J.-H. (155) 329)
- Hydrogen fuel
Hydrogen fuel; Cell configuration; Cell materials; Cell assembly method; Temperature control method; JARI's standard single cell (Hashimasa, Y. (155) 182)
- Hydrogen generation
Lithium borohydride; Chemical hydride; Catalyst; Nano-Pt; High-resolution transmission electron microscopy (Kojima, Y. (155) 325)
- Hydrogen membranes
Borohydride; Electrocatalysts; Fuel cell (de Leon, C.P. (155) 172)
- Hydrogen storage
Complex hydrides; Lithium; Borohydride; Amide; Boronitride (Nakamori, Y. (155) 447)

- Hydrogen storage
Hydrogen storage; Sodium oxide; Sodium hydride; Sodium hydroxide (Xu, Q. (155) 167)
- Hydrogen storage alloy
Hydrogen storage alloy; Ni–MH battery; Crystal structure; Electrochemical property (Tang, R. (155) 456)
- Hydrolysis reaction
Sodium borohydride; Proton exchange membrane fuel cells; Direct sodium borohydride fuel cells; Hydrogen (Wee, J.-H. (155) 329)
- Impedance rise
Impedance rise; Lithium-ion; Cycle life; Calendar life (Bloom, I. (155) 415)
- Interconnect
Solid oxide fuel cell; Electrical contact; Perovskite (Yang, Z. (155) 246)
- Interconnect materials
SOFC stacks; Glass–ceramic sealants; Ferritic high-chromium steels; Chemical interaction; Short-circuiting (Batfalsky, P. (155) 128)
- Interdiffusion
Amorphous silicon; Thin film; Deposition temperature (Moon, T. (155) 391)
- Interfacial structure
Nafion® membrane; Ion beam bombardment; Proton exchange membrane fuel cell (PEMFC); Surface roughness (Cho, S.A. (155) 286)
- Internal combustion engine vehicle
Fuel cell vehicle; Life cycle analysis; Greenhouse gas emissions; Energy efficiency (Zamel, N. (155) 297)
- Internal reforming
Steam reforming; Solid oxide fuel cell; Nickel/zirconia anode; Copper; Wet impregnation (Boder, M. (155) 13)
- Ion beam bombardment
Nafion® membrane; Proton exchange membrane fuel cell (PEMFC); Surface roughness; Interfacial structure (Cho, S.A. (155) 286)
- Ionic conductivity
Gel electrolyte; Ionic liquid; Morpholinium salts; Thermal stability lithium battery (Kim, K.-S. (155) 385)
- Ionic liquid
Gel electrolyte; Ionic conductivity; Morpholinium salts; Thermal stability lithium battery (Kim, K.-S. (155) 385)
- Iron/carbon nanocomposite
Nano-carbon; Additive; Iron–air battery anode (Hang, B.T. (155) 461)
- Iron–air battery anode
Nano-carbon; Additive; Iron/carbon nanocomposite (Hang, B.T. (155) 461)
- Iso*-octane
Solid oxide fuel cells; Catalyst; Hydrocarbons; Partial oxidation (Zhan, Z. (155) 353)
- JARI's standard single cell
Hydrogen fuel; Cell configuration; Cell materials; Cell assembly method; Temperature control method (Hashimasa, Y. (155) 182)
- Kinetics
Selective oxidation CO; Au-Pt/ZnO catalyst; Selectivity; Hydrogen (Wang, Y.H. (155) 440)
- Lead-acid battery
Battery testing; State-of-charge; Modelling; Lithium-ion battery (Doerffel, D. (155) 395)
- Lead–acid battery
Lead–acid battery; Valve regulated; Miner's cap lamp battery; Red lead (Ferg, E.E. (155) 428)
- Li₄Ti₅O₁₂
Lithium secondary batteries; High-density; Spherical (Gao, J. (155) 364)
- LiCoO₂
Screen printing; Thick films; Lithium-ion batteries; Cathode (Lee, S.-T. (155) 375)
- Life cycle analysis
Fuel cell vehicle; Internal combustion engine vehicle; Greenhouse gas emissions; Energy efficiency (Zamel, N. (155) 297)
- Lithium
Complex hydrides; Borohydride; Amide; Boronitride; Hydrogen storage (Nakamori, Y. (155) 447)
- Lithium borohydride
Lithium borohydride; Chemical hydride; Hydrogen generation; Catalyst; Nano-Pt; High-resolution transmission electron microscopy (Kojima, Y. (155) 325)
- Lithium ion
PoLiFlex™; Lithium-ion polymer; History of fuel cell and battery (Ilic, D. (155) 72)
- Lithium secondary batteries
Lithium secondary batteries; Li₄Ti₅O₁₂; High-density; Spherical (Gao, J. (155) 364)
- Lithium-ion
Impedance rise; Cycle life; Calendar life (Bloom, I. (155) 415)
- Lithium-ion batteries
Lithium-ion batteries; Safety; Battery hazard; Non-flammable electrolytes; Thermal runaway (Balakrishnan, P.G. (155) 401)
- Lithium-ion batteries
Screen printing; Thick films; Cathode; LiCoO₂ (Lee, S.-T. (155) 375)
- Lithium-ion battery
Battery testing; State-of-charge; Modelling; Lead-acid battery (Doerffel, D. (155) 395)
- Lithium-ion polymer
PoLiFlex™; Lithium ion; History of fuel cell and battery (Ilic, D. (155) 72)
- Load following
Direct methanol fuel cell; Stack; Voltage distribution; Flow direction; Autonomous temperature (Kim, D. (155) 203)
- Mathematical model
PEM fuel cell; Water and thermal management; Humidification; Pressure drop (Zhou, B. (155) 190)
- Mathematical model
Proton exchange membrane (PEM); Fuel cells; Two-phase flow; Water and thermal management (You, L. (155) 219)
- MCFC
Fuel cell; PEMFC; SOFC (Münch, W. (155) 77)
- Membrane electrode assembly
Polymer electrolyte membrane fuel cell; Bipolar plate (Kumar, A. (155) 264)
- Metal hydride
Thermal behaviour; Modelling; Bipolar battery; Hybrid vehicle; Finite element methods (Harmel, J. (155) 88)
- Metal hydride electrode
Nanostructured material; Absorption of hydrogen (Rivera, M.A. (155) 470)
- Methanol
Fuel cells; Hydrogen; DME; Alternative fuel; Reforming (Semelsberger, T.A. (155) 340)
- Methanol electrooxidation
Polyaniline; SWNT; Composite support; Pt particles (Wu, G. (155) 118)
- Methanol oxidation
Conducting polymers; Polypyrrole; Electrocatalysis; Fuel cells (Radhakrishnan, S. (155) 157)
- Micro channel
Polymer electrolyte fuel cell; DMFC; Micro fuel cell (Wong, C.W. (155) 291)
- Micro fuel cell
Polymer electrolyte fuel cell; DMFC; Micro channel (Wong, C.W. (155) 291)
- Microbatteries
Copper oxide; Reactive sputtering; Thin films (Souza, E.A. (155) 358)
- Miner's cap lamp battery
Lead–acid battery; Valve regulated; Red lead (Ferg, E.E. (155) 428)
- Model
PEFC; Dynamic; Heat; System (Graf, C. (155) 52)

- Modelling
 Battery testing; State-of-charge; Lead-acid battery; Lithium-ion battery (Doerffel, D. (155) 395)
- Modelling
 Thermal behaviour; Bipolar battery; Metal hydride; Hybrid vehicle; Finite element methods (Harmel, J. (155) 88)
- Modification
 Activated carbon; Carbon aerogel; Surfactant; Electric double layer capacitor (Fang, B. (155) 487)
- Modified electrode
 Polyaniline (PANI); Nanofibular; Gas-diffusion electrode; Proton-exchange membrane fuel cell; Nanostructure; Oxygen reduction reaction (Gharibi, H. (155) 138)
- Morpholinium salts
 Gel electrolyte; Ionic liquid; Ionic conductivity; Thermal stability lithium battery (Kim, K.-S. (155) 385)
- Nafion® membrane
 Nafion® membrane; Ion beam bombardment; Proton exchange membrane fuel cell (PEMFC); Surface roughness; Interfacial structure (Cho, S.A. (155) 286)
- Nano-carbon
 Nano-carbon; Additive; Iron/carbon nanocomposite; Iron-air battery anode (Hang, B.T. (155) 461)
- Nanofibular
 Polyaniline (PANI); Modified electrode; Gas-diffusion electrode; Proton-exchange membrane fuel cell; Nanostructure; Oxygen reduction reaction (Gharibi, H. (155) 138)
- Nano-Pt
 Lithium borohydride; Chemical hydride; Hydrogen generation; Catalyst; High-resolution transmission electron microscopy (Kojima, Y. (155) 325)
- Nanostructure
 Polyaniline (PANI); Nanofibular; Modified electrode; Gas-diffusion electrode; Proton-exchange membrane fuel cell; Oxygen reduction reaction (Gharibi, H. (155) 138)
- Nanostructured material
 Nanostructured material; Metal hydride electrode; Absorption of hydrogen (Rivera, M.A. (155) 470)
- Nickel/zirconia anode
 Steam reforming; Internal reforming; Solid oxide fuel cell; Copper; Wet impregnation (Boder, M. (155) 13)
- Ni-MH battery
 Hydrogen storage alloy; Crystal structure; Electrochemical property (Tang, R. (155) 456)
- Non-flammable electrolytes
 Lithium-ion batteries; Safety; Battery hazard; Thermal runaway (Balakrishnan, P.G. (155) 401)
- Off-grid electricity
 RAPS; Hybrid system; 24 h power (Moseley, P.T. (155) 83)
- Orange dye
 Rechargeable cell; Electrochemical sensor; Charge-discharge process; Organic semiconductor; Energy storage and conversion (Karimov, K.S. (155) 475)
- Organic semiconductor
 Rechargeable cell; Electrochemical sensor; Orange dye; Charge-discharge process; Energy storage and conversion (Karimov, K.S. (155) 475)
- Oxygen evolution
 Bifunctional oxygen electrode; Electrochemical oxygen reduction; Reversible fuel cell (Jörissen, L. (155) 23)
- Oxygen reduction
 Oxygen reduction; Ruthenium; Selenium; RuO₂; Anodic stability (Schulenburg, H. (155) 47)
- Oxygen reduction
 PEM fuel cell; Platinum alloy; Dissolution; Cathode stability; Activity (Colón-Mercado, H.R. (155) 253)
- Oxygen reduction
 Pt₇₀Ni₃₀/C alloy; Direct methanol fuel cells (Antolini, E. (155) 161)
- Oxygen reduction reaction
 Polyaniline (PANI); Nanofibular; Modified electrode; Gas-diffusion electrode; Proton-exchange membrane fuel cell; Nanostructure (Gharibi, H. (155) 138)
- Partial oxidation
 Solid oxide fuel cells; Catalyst; Hydrocarbons; *Iso*-octane (Zhan, Z. (155) 353)
- Pb-Sn alloy
 Pb-Sn alloy; Potentiodynamic polarization; Corrosion rate (Xu, J. (155) 420)
- PEEK-sulfinate
 PEEK-sulfochloride; Reduction; Covalent cross-linking; TGA; DMFC (Zhang, W. (155) 3)
- PEEK-sulfochloride
 PEEK-sulfochloride; Reduction; PEEK-sulfinate; Covalent cross-linking; TGA; DMFC (Zhang, W. (155) 3)
- PEFC
 PEFC; Humidity distribution; Current distribution (Nishikawa, H. (155) 213)
- PEFC
 PEFC; Model; Dynamic; Heat; System (Graf, C. (155) 52)
- PEM fuel cell
 PEM fuel cell; Oxygen reduction; Platinum alloy; Dissolution; Cathode stability; Activity (Colón-Mercado, H.R. (155) 253)
- PEM fuel cell
 PEM fuel cell; Water and thermal management; Mathematical model; Humidification; Pressure drop (Zhou, B. (155) 190)
- PEMFC
 Fuel cell; Flow field design; Rib and channel geometry; Cell performance (Scholta, J. (155) 66)
- PEMFC
 Fuel cell; Flow field design; Rib and channel geometry; Cross transport effects (Scholta, J. (155) 60)
- PEMFC
 Fuel cell; MCFC; SOFC (Münch, W. (155) 77)
- Perovskite
 Solid oxide fuel cell; Interconnect; Electrical contact (Yang, Z. (155) 246)
- Platinum alloy
 PEM fuel cell; Oxygen reduction; Dissolution; Cathode stability; Activity (Colón-Mercado, H.R. (155) 253)
- Polarization loss
 Electrode; Current-collecting layer; Cell performance; Solid oxide fuel cell; Power density (Jung, H.Y. (155) 145)
- PoLiFlex™
 PoLiFlex™; Lithium ion; Lithium-ion polymer; History of fuel cell and battery (Ilic, D. (155) 72)
- Polyaniline
 Polyaniline; SWNT; Composite support; Methanol electrooxidation; Pt particles (Wu, G. (155) 118)
- Polyaniline (PANI)
 Polyaniline (PANI); Nanofibular; Modified electrode; Gas-diffusion electrode; Proton-exchange membrane fuel cell; Nanostructure; Oxygen reduction reaction (Gharibi, H. (155) 138)
- Polyaniline, dc conductivity
 Polyelectrolyte; Polyethylene oxide; Electrochemical cell; Battery (Devendrappa, H. (155) 368)
- Poly-ε-caprolactone
 Polymer electrolyte; Batteries; Biodegradation; Electrochemical devices (Fonseca, C.P. (155) 381)
- Polyelectrolyte
 Polyelectrolyte; Polyethylene oxide; Polyaniline, dc conductivity; Electrochemical cell; Battery (Devendrappa, H. (155) 368)
- Polyethylene oxide
 Polyelectrolyte; Polyaniline, dc conductivity; Electrochemical cell; Battery (Devendrappa, H. (155) 368)
- Polymer electrolyte
 Polymer electrolyte; Batteries; Biodegradation; Poly-ε-caprolactone; Electrochemical devices (Fonseca, C.P. (155) 381)

- Polymer electrolyte fuel cell
 Polymer electrolyte fuel cell; DMFC; Micro channel; Micro fuel cell (Wong, C.W. (155) 291)
- Polymer electrolyte fuel cell
 Polymer electrolyte fuel cell; Tin oxide; Electrocatalyst; Carbon monoxide (Matsui, T. (155) 152)
- Polymer electrolyte membrane fuel cell
 Polymer electrolyte membrane fuel cell; Membrane electrode assembly; Bipolar plate (Kumar, A. (155) 264)
- Polypyrrole
 Conducting polymers; Electrocatalysis; Methanol oxidation; Fuel cells (Radhakrishnan, S. (155) 157)
- Potentiodynamic polarization
 Pb-Sn alloy; Corrosion rate (Xu, J. (155) 420)
- Power
 Fuel cell; Equivalent circuit; Power density; Fuel efficiency (Benziger, J.B. (155) 272)
- Power density
 Electrode; Current-collecting layer; Polarization loss; Cell performance; Solid oxide fuel cell (Jung, H.Y. (155) 145)
- Power density
 Fuel cell; Power; Equivalent circuit; Fuel efficiency (Benziger, J.B. (155) 272)
- Power limiting
 Electrolysis; Hydrogen; Wind energy; Sliding mode control (De Battista, H. (155) 478)
- Pressure drop
 PEM fuel cell; Water and thermal management; Mathematical model; Humidification (Zhou, B. (155) 190)
- Proton exchange membrane fuel cell (PEMFC)
 Nafion® membrane; Ion beam bombardment; Surface roughness; Interfacial structure (Cho, S.A. (155) 286)
- Proton exchange membrane fuel cells
 Sodium borohydride; Hydrolysis reaction; Direct sodium borohydride fuel cells; Hydrogen (Wee, J.-H. (155) 329)
- Proton exchange membrane (PEM)
 Proton exchange membrane (PEM); Fuel cells; Two-phase flow; Mathematical model; Water and thermal management (You, L. (155) 219)
- Proton-exchange membrane fuel cell
 Polyaniline (PANI); Nanofibular; Modified electrode; Gas-diffusion electrode; Nanostructure; Oxygen reduction reaction (Gharibi, H. (155) 138)
- Pt particles
 Polyaniline; SWNT; Composite support; Methanol electrooxidation (Wu, G. (155) 118)
- Pt/Vulcan
 Ethylene glycol oxidation; Supported catalyst; PtRu/Vulcan; Pt₃Sn/Vulcan; DEMS (Wang, H. (155) 33)
- Pt₃Sn/Vulcan
 Ethylene glycol oxidation; Supported catalyst; Pt/Vulcan; PtRu/Vulcan; DEMS (Wang, H. (155) 33)
- Pt₇₀Ni₃₀/C alloy
 Pt₇₀Ni₃₀/C alloy; Oxygen reduction; Direct methanol fuel cells (Antolini, E. (155) 161)
- Pt-Ru alloy
 Direct methanol fuel cell; Anode catalyst; Synthesis method; Carbon support; Combinatorial method (Liu, H. (155) 95)
- PtRu/Vulcan
 Ethylene glycol oxidation; Supported catalyst; Pt/Vulcan; Pt₃Sn/Vulcan; DEMS (Wang, H. (155) 33)
- RAPS
 RAPS; Hybrid system; 24 h power; Off-grid electricity (Moseley, P.T. (155) 83)
- Reactive sputtering
 Copper oxide; Thin films; Microbatteries (Souza, E.A. (155) 358)
- Rechargeable cell
 Rechargeable cell; Electrochemical sensor; Orange dye; Charge-discharge process; Organic semiconductor; Energy storage and conversion (Karimov, K.S. (155) 475)
- Red lead
 Lead-acid battery; Valve regulated; Miner's cap lamp battery (Ferg, E.E. (155) 428)
- Reduction
 PEEK-sulfochloride; PEEK-sulfinate; Covalent cross-linking; TGA; DMFC (Zhang, W. (155) 3)
- Reforming
 Fuel cells; Hydrogen; Methanol; DME; Alternative fuel (Semelsberger, T.A. (155) 340)
- Reversible fuel cell
 Bifunctional oxygen electrode; Electrochemical oxygen reduction; Oxygen evolution (Jörissen, L. (155) 23)
- Rib and channel geometry
 Fuel cell; PEMFC; Flow field design; Cell performance (Scholta, J. (155) 66)
- Rib and channel geometry
 Fuel cell; PEMFC; Flow field design; Cross transport effects (Scholta, J. (155) 60)
- RuO₂
 Oxygen reduction; Ruthenium; Selenium; Anodic stability (Schulenburg, H. (155) 47)
- Ruthenium
 Oxygen reduction; Selenium; RuO₂; Anodic stability (Schulenburg, H. (155) 47)
- Safety
 Lithium-ion batteries; Battery hazard; Non-flammable electrolytes; Thermal runaway (Balakrishnan, P.G. (155) 401)
- Screen printing
 Screen printing; Thick films; Lithium-ion batteries; Cathode; LiCoO₂ (Lee, S.-T. (155) 375)
- Selective oxidation CO
 Selective oxidation CO; Au-Pt/ZnO catalyst; Selectivity; Hydrogen; Kinetics (Wang, Y.H. (155) 440)
- Selectivity
 Selective oxidation CO; Au-Pt/ZnO catalyst; Hydrogen; Kinetics (Wang, Y.H. (155) 440)
- Selenium
 Oxygen reduction; Ruthenium; RuO₂; Anodic stability (Schulenburg, H. (155) 47)
- Short-circuiting
 SOFC stacks; Glass-ceramic sealants; Interconnect materials; Ferritic high-chromium steels; Chemical interaction (Batfalsky, P. (155) 128)
- Signal detector
 Signal detector; Alkaline fuel cell; Signal disturbance; Environmental health; Cellular phone (Abdullah, M.O. (155) 311)
- Signal disturbance
 Signal detector; Alkaline fuel cell; Environmental health; Cellular phone (Abdullah, M.O. (155) 311)
- Silica nanocomposites
 Sulfonated polymer; Fuel cell (Su, Y.-H. (155) 111)
- Sliding mode control
 Electrolysis; Hydrogen; Wind energy; Power limiting (De Battista, H. (155) 478)
- Sodium borohydride
 Sodium borohydride; Hydrolysis reaction; Proton exchange membrane fuel cells; Direct sodium borohydride fuel cells; Hydrogen (Wee, J.-H. (155) 329)
- Sodium hydride
 Hydrogen storage; Sodium oxide; Sodium hydroxide (Xu, Q. (155) 167)
- Sodium hydroxide
 Hydrogen storage; Sodium oxide; Sodium hydride (Xu, Q. (155) 167)
- Sodium oxide
 Hydrogen storage; Sodium hydride; Sodium hydroxide (Xu, Q. (155) 167)

- SOFC
 Fuel cell; PEMFC; MCFC (Münch, W. (155) 77)
- SOFC stacks
 SOFC stacks; Glass–ceramic sealants; Interconnect materials; Ferritic high-chromium steels; Chemical interaction; Short-circuiting (Batfalsky, P. (155) 128)
- Solid oxide fuel cell
 Electrode; Current-collecting layer; Polarization loss; Cell performance; Power density (Jung, H.Y. (155) 145)
- Solid oxide fuel cell
 Solid oxide fuel cell; Interconnect; Electrical contact; Perovskite (Yang, Z. (155) 246)
- Solid oxide fuel cell
 Steam reforming; Internal reforming; Nickel/zirconia anode; Copper; Wet impregnation (Boder, M. (155) 13)
- Solid oxide fuel cells
 Solid oxide fuel cells; Catalyst; Hydrocarbons; *Iso*-octane; Partial oxidation (Zhan, Z. (155) 353)
- Solid oxide full cell
 Solid oxide full cell; Hydrocarbon fuels; Carbon formation; Gas-phase pyrolysis; Ceria; Yttria-stabilized zirconia (Kim, T. (155) 231)
- Spherical
 Lithium secondary batteries; $\text{Li}_4\text{Ti}_5\text{O}_{12}$; High-density (Gao, J. (155) 364)
- Stack
 Direct methanol fuel cell; Voltage distribution; Flow direction; Autonomous temperature; Load following (Kim, D. (155) 203)
- State-of-charge
 Battery testing; Modelling; Lead-acid battery; Lithium-ion battery (Doerffel, D. (155) 395)
- Steam reforming
 Steam reforming; Internal reforming; Solid oxide fuel cell; Nickel/zirconia anode; Copper; Wet impregnation (Boder, M. (155) 13)
- Sulfonated polymer
 Sulfonated polymer; Silica nanocomposites; Fuel cell (Su, Y.-H. (155) 111)
- Supported catalyst
 Ethylene glycol oxidation; Pt/Vulcan; PtRu/Vulcan; Pt_3Sn /Vulcan; DEMS (Wang, H. (155) 33)
- Surface roughness
 Nafion[®] membrane; Ion beam bombardment; Proton exchange membrane fuel cell (PEMFC); Interfacial structure (Cho, S.A. (155) 286)
- Surfactant
 Activated carbon; Carbon aerogel; Modification; Electric double layer capacitor (Fang, B. (155) 487)
- SWNT
 Polyaniline; Composite support; Methanol electrooxidation; Pt particles (Wu, G. (155) 118)
- Synthesis method
 Direct methanol fuel cell; Anode catalyst; Pt–Ru alloy; Carbon support; Combinatorial method (Liu, H. (155) 95)
- System
 PEFC; Model; Dynamic; Heat (Graf, C. (155) 52)
- Temperature control method
 Hydrogen fuel; Cell configuration; Cell materials; Cell assembly method; JARI's standard single cell (Hashimasa, Y. (155) 182)
- TGA
 PEEK-sulfochloride; Reduction; PEEK-sulfinate; Covalent cross-linking; DMFC (Zhang, W. (155) 3)
- Thermal behaviour
 Thermal behaviour; Modelling; Bipolar battery; Metal hydride; Hybrid vehicle; Finite element methods (Harmel, J. (155) 88)
- Thermal runaway
 Lithium-ion batteries; Safety; Battery hazard; Non-flammable electrolytes (Balakrishnan, P.G. (155) 401)
- Thermal stability lithium battery
 Gel electrolyte; Ionic liquid; Ionic conductivity; Morpholinium salts (Kim, K.-S. (155) 385)
- Thick films
 Screen printing; Lithium-ion batteries; Cathode; LiCoO_2 (Lee, S.-T. (155) 375)
- Thin conducting inclusion
 Fuel cell; Gas diffusion medium; Charge distribution; Heterogeneous structure (Lavrov, N. (155) 239)
- Thin film
 Amorphous silicon; Deposition temperature; Interdiffusion (Moon, T. (155) 391)
- Thin films
 Copper oxide; Reactive sputtering; Microbatteries (Souza, E.A. (155) 358)
- Tin oxide
 Polymer electrolyte fuel cell; Electrocatalyst; Carbon monoxide (Matsui, T. (155) 152)
- Two-phase flow
 Proton exchange membrane (PEM); Fuel cells; Mathematical model; Water and thermal management (You, L. (155) 219)
- Valve regulated
 Lead–acid battery; Miner's cap lamp battery; Red lead (Ferg, E.E. (155) 428)
- Voltage distribution
 Direct methanol fuel cell; Stack; Flow direction; Autonomous temperature; Load following (Kim, D. (155) 203)
- Water and thermal management
 PEM fuel cell; Mathematical model; Humidification; Pressure drop (Zhou, B. (155) 190)
- Water and thermal management
 Proton exchange membrane (PEM); Fuel cells; Two-phase flow; Mathematical model (You, L. (155) 219)
- Wet impregnation
 Steam reforming; Internal reforming; Solid oxide fuel cell; Nickel/zirconia anode; Copper (Boder, M. (155) 13)
- Wind energy
 Electrolysis; Hydrogen; Sliding mode control; Power limiting (De Battista, H. (155) 478)
- Yttria-stabilized zirconia
 Solid oxide full cell; Hydrocarbon fuels; Carbon formation; Gas-phase pyrolysis; Ceria (Kim, T. (155) 231)