

Subject Index of Volume 169

- Acid–base polymer complex
 High temperature PEMFC; H₃PO₄/Nafion–PBI; Durability; Mechanical failure (Zhai, Y. (169) 259)
- Activated carbon
 Electrochemical capacitors; Graphite; Organic electrolytes; Intercalation (Wang, H. (169) 375)
- Air-breathing
 Fuel cell; Gas diffusion electrodes; Portable device; Stack; Flow-field (Urbani, F. (169) 334)
- Airport
 PEMFC; Hydrogen; Vehicle; Hybrid system (Fontela, P. (169) 184)
- Air–water flow pattern
 Water management; Gas diffusion layer (GDL); CFD (Jiao, K. (169) 296)
- Alcohol reforming
 Plasma reaction; Hydrogen production; Hydrocarbon reforming; DBD plasma (Sarmiento, B. (169) 140)
- Aluminum
 Hydrogen production; Aluminum alloys; Caustic corrosion (Soler, L. (169) 144)
- Aluminum alloys
 Hydrogen production; Aluminum; Caustic corrosion (Soler, L. (169) 144)
- Amorphous alloys
 Modified carbon paste electrodes; Electrocatalysis; Fuel cells (Barranco, J. (169) 71)
- Anode
 SOFC; Direct oxidation of methane; Intermediate temperature; Copper; Nickel; CeO₂; CGO; Ce-Tb mixed oxide (Hornés, A. (169) 9)
- Anode-supported
 Solid oxide fuel cell; Yttria stabilized zirconia; NiO–YSZ composite powder; Power density; Electrolyte microstructure (Kim, S.-D. (169) 265)
- Automotive
 DEA; Hydrogen; Environment (Brey, J.J. (169) 213)
- BaPrO₃
 p-Type conductivity; Proton conductivity; Electrolyte; Electrode; Perovskite (Magrasó, A. (169) 53)
- Binary carbon supports
 Gas diffusion electrode; Proton exchange membrane fuel cell; Oxygen reduction reaction; Synergism effect; Fuel cell (Kheirmand, M. (169) 327)
- Bio-energy
 Bioethanol; Reforming; Hydrogen; Fuel processor; Fuel cell (Benito, M. (169) 167)
- Bioethanol
 Reforming; Bio-energy; Hydrogen; Fuel processor; Fuel cell (Benito, M. (169) 167)
- Bioethanol
 Steam reforming; Fuel processor; Fuel cell; Hydrogen (Benito, M. (169) 123)
- Biogas
 Reforming; Hydrogen; Fuel cell; Processor; Methane (Benito, M. (169) 177)
- Calcination temperature
 Hydrogen production; Ni catalysts (Echegoyen, Y. (169) 150)
- Carbon catalysts
 Hydrogen production; Methane decarbonization; Catalyst regeneration (Pinilla, J.L. (169) 103)
- Catalyst
 PEMFC; Cermet; Polarisation curves; Pt-Ru-Ni (Moreno, B. (169) 98)
- Catalyst ink
 Electrode property; Dispersion solvent; Proton conductivity; Pore morphology (Sung, K.A. (169) 271)
- Catalyst regeneration
 Hydrogen production; Methane decarbonization; Carbon catalysts (Pinilla, J.L. (169) 103)
- Cathode
 Electrocatalyst; Electrospray deposition; PEMFC (Chaparro, A.M. (169) 77)
- Cathode
In situ structural evolution; Neutron powder diffraction; IT-SOFC; K₂NiF₄; Metal-insulator transition (Aguadero, A. (169) 17)
- Cathodes
 SOFC; Perovskite; Pulsed laser deposition; Electrochemical impedance spectroscopy (Larramendi, I.R.d. (169) 35)
- Caustic corrosion
 Hydrogen production; Aluminum; Aluminum alloys (Soler, L. (169) 144)
- Ce–Cu mixed oxides
 SOFC anodes; Freeze-drying; Microemulsion coprecipitation (Fuerte, A. (169) 47)
- CeO₂
 SOFC; Anode; Direct oxidation of methane; Intermediate temperature; Copper; Nickel; CGO; Ce-Tb mixed oxide (Hornés, A. (169) 9)
- Ceria
 SOFC; Single-chamber; Cobaltite (Piñol, S. (169) 2)
- Cermet
 Catalyst; PEMFC; Polarisation curves; Pt-Ru-Ni (Moreno, B. (169) 98)
- Ce-Tb mixed oxide
 SOFC; Anode; Direct oxidation of methane; Intermediate temperature; Copper; Nickel; CeO₂; CGO (Hornés, A. (169) 9)
- CFD
 Water management; Air–water flow pattern; Gas diffusion layer (GDL) (Jiao, K. (169) 296)
- CGO
 SOFC; Anode; Direct oxidation of methane; Intermediate temperature; Copper; Nickel; CeO₂; Ce-Tb mixed oxide (Hornés, A. (169) 9)
- Co
 Electrodeposition; Pt₃Co; Pt; Quartz crystal microbalance; Electrocatalyst; PEMFC; Fuel cells (Martín, A.J. (169) 65)
- CO oxidation
 Ordered mesoporous carbon; Electrocatalyst; DMFC; Electrochemical characterization (Calvillo, L. (169) 59)
- Coal syngas
 Solid oxide fuel cell; Experimental performance; Hydrogen chloride (Tremblay, J.P. (169) 347)

- Cobalt catalysts
Ethanol steam reforming; Hydrogen; Fuel cells; Nickel catalysts (Torres, J.A. (169) 158)
- Cobaltite
SOFC; Single-chamber; Ceria (Piñol, S. (169) 2)
- Composite membranes
Nafion; Ormolytes; Impedance Spectroscopy; Thermal analysis (Mecheri, B. (169) 247)
- Composites
PEMFC; Proton conduction; Conductivity; Zeolite; Membrane (Sancho, T. (169) 92)
- Conductivity
PEMFC; Proton conduction; Zeolite; Membrane; Composites (Sancho, T. (169) 92)
- Control
PEMFC; Fuel cell; Oxygen excess ratio (Vega-Leal, A.P. (169) 194)
- Convection
Solid oxide; Fuel cell; Radiation; Radiosity (Sánchez, D. (169) 25)
- Copper
SOFC; Anode; Direct oxidation of methane; Intermediate temperature; Nickel; CeO₂; CGO; Ce-Tb mixed oxide (Hornés, A. (169) 9)
- CO-PROX
CuO/CeO₂; H₂-TPR; CO-TPR; XPS; Microemulsion (Gamarra, D. (169) 110)
- CO-TPR
CuO/CeO₂; CO-PROX; H₂-TPR; XPS; Microemulsion (Gamarra, D. (169) 110)
- Crofer 22
Sealing; Glass-ceramic; Interconnect; SOFC (Pascual, M.J. (169) 40)
- CuO/CeO₂
CO-PROX; H₂-TPR; CO-TPR; XPS; Microemulsion (Gamarra, D. (169) 110)
- Current collection
SOFC; Tubular cell; Modeling (Zhu, H. (169) 315)
- Dark fermentation
Hydrogen; Waste treatment; Factorial design; Optimization; Desirability function (Cuetos, M.J. (169) 131)
- DBD plasma
Plasma reaction; Hydrogen production; Hydrocarbon reforming; Alcohol reforming (Sarmiento, B. (169) 140)
- DEA
Automotive; Hydrogen; Environment (Brey, J.J. (169) 213)
- Desirability function
Dark fermentation; Hydrogen; Waste treatment; Factorial design; Optimization (Cuetos, M.J. (169) 131)
- Direct liquid-feed fuel cell
Polymer electrolyte membrane fuel cell (Demirci, U.B. (169) 239)
- Direct methanol fuel cell
Dynamic simulation; Transient response; Modeling; Pulse loading (Vilar, E. (169) 276)
- Direct oxidation of methane
SOFC; Anode; Intermediate temperature; Copper; Nickel; CeO₂; CGO; Ce-Tb mixed oxide (Hornés, A. (169) 9)
- Dispersion solvent
Electrode property; Proton conductivity; Pore morphology; Catalyst ink (Sung, K.A. (169) 271)
- DMFC
Ordered mesoporous carbon; Electrocatalyst; CO oxidation; Electrochemical characterization (Calvillo, L. (169) 59)
- DMFC
Polymer electrolyte membrane; Methanol crossover; Proton conductivity; Durability; Thermal stability (Neburchilov, V. (169) 221)
- Durability
High temperature PEMFC; H₃PO₄/Nafion-PBI; Acid-base polymer complex; Mechanical failure (Zhai, Y. (169) 259)
- Durability
Polymer electrolyte membrane; DMFC; Methanol crossover; Proton conductivity; Thermal stability (Neburchilov, V. (169) 221)
- Dynamic matrix control
PEMFC; Multivariable control; Predictive control; Performance improvement (Feroldi, D. (169) 205)
- Dynamic simulation
Direct methanol fuel cell; Transient response; Modeling; Pulse loading (Vilar, E. (169) 276)
- Electricity generation
Waste water treatment; Microbial fuel cell (Rodrigo, M.A. (169) 198)
- Electrocatalysis
Amorphous alloys; Modified carbon paste electrodes; Fuel cells (Barranco, J. (169) 71)
- Electrocatalyst
Electrodeposition; Pt₃Co; Pt; Co; Quartz crystal microbalance; PEMFC; Fuel cells (Martín, A.J. (169) 65)
- Electrocatalyst
Electrospray deposition; Cathode; PEMFC (Chaparro, A.M. (169) 77)
- Electrocatalyst
Ordered mesoporous carbon; DMFC; CO oxidation; Electrochemical characterization (Calvillo, L. (169) 59)
- Electrochemical capacitors
Graphite; Activated carbon; Organic electrolytes; Intercalation (Wang, H. (169) 375)
- Electrochemical characterization
Ordered mesoporous carbon; Electrocatalyst; DMFC; CO oxidation (Calvillo, L. (169) 59)
- Electrochemical impedance spectroscopy
SOFC; Cathodes; Perovskite; Pulsed laser deposition (Larramendi, I.R.d. (169) 35)
- Electrode
BaPrO₃; p-Type conductivity; Proton conductivity; Electrolyte; Perovskite (Magrasó, A. (169) 53)
- Electrode property
Dispersion solvent; Proton conductivity; Pore morphology; Catalyst ink (Sung, K.A. (169) 271)
- Electrodeposition
Lead-tin; Sorbitol-alkaline bath; X-ray spectroscopy; Morphology (Siqueira, J.L.P. (169) 361)
- Electrodeposition
Pt₃Co; Pt; Co; Quartz crystal microbalance; Electrocatalyst; PEMFC; Fuel cells (Martín, A.J. (169) 65)
- Electrolyte
BaPrO₃; p-Type conductivity; Proton conductivity; Electrode; Perovskite (Magrasó, A. (169) 53)
- Electrolyte microstructure
Solid oxide fuel cell; Anode-supported; Yttria stabilized zirconia; NiO-YSZ composite powder; Power density (Kim, S.-D. (169) 265)
- Electrospray deposition
Electrocatalyst; Cathode; PEMFC (Chaparro, A.M. (169) 77)
- Energy harvesting
Miniature PEMFC; Underwater glider; Thermal engine (Wang, S. (169) 338)
- Energy storage
Wind power generation; Spectral analysis; Intermittent; Renewable energy; Reliability (Apt, J. (169) 369)
- Environment
DEA; Automotive; Hydrogen (Brey, J.J. (169) 213)
- Ethanol steam reforming
Hydrogen; Fuel cells; Nickel catalysts; Cobalt catalysts (Torres, J.A. (169) 158)
- Experimental performance
Solid oxide fuel cell; Coal syngas; Hydrogen chloride (Tremblay, J.P. (169) 347)
- Factorial design
Dark fermentation; Hydrogen; Waste treatment; Optimization; Desirability function (Cuetos, M.J. (169) 131)

Fenton's test

Membrane degradation; Nafion®; Membrane electrode assembly; X-ray photoelectron spectroscopy; Fourier transform infrared spectroscopy (Chen, C. (169) 288)

Flow-field

Fuel cell; Gas diffusion electrodes; Portable device; Stack; Air-breathing (Urbani, F. (169) 334)

Fourier transform infrared spectroscopy

Membrane degradation; Nafion®; Membrane electrode assembly; X-ray photoelectron spectroscopy; Fenton's test (Chen, C. (169) 288)

Freeze-drying

SOFC anodes; Ce–Cu mixed oxides; Microemulsion coprecipitation (Fuerte, A. (169) 47)

Fuel cell

Binary carbon supports; Gas diffusion electrode; Proton exchange membrane fuel cell; Oxygen reduction reaction; Synergism effect (Kheirmand, M. (169) 327)

Fuel cell

Bioethanol; Reforming; Bio-energy; Hydrogen; Fuel processor (Benito, M. (169) 167)

Fuel cell

Bioethanol; Steam reforming; Fuel processor; Hydrogen (Benito, M. (169) 123)

Fuel cell

Biogas; Reforming; Hydrogen; Processor; Methane (Benito, M. (169) 177)

Fuel cell

Gas diffusion electrodes; Portable device; Stack; Air-breathing; Flow-field (Urbani, F. (169) 334)

Fuel cell

PEMFC; Control; Oxygen excess ratio (Vega-Leal, A.P. (169) 194)

Fuel cell

Solid oxide; Convection; Radiation; Radiosity (Sánchez, D. (169) 25)

Fuel cells

Amorphous alloys; Modified carbon paste electrodes; Electrocatalysis (Barranco, J. (169) 71)

Fuel cells

Electrodeposition; Pt₃Co; Pt; Co; Quartz crystal microbalance; Electrocatalyst; PEMFC (Martín, A.J. (169) 65)

Fuel cells

Ethanol steam reforming; Hydrogen; Nickel catalysts; Cobalt catalysts (Torres, J.A. (169) 158)

Fuel processor

Bioethanol; Reforming; Bio-energy; Hydrogen; Fuel cell (Benito, M. (169) 167)

Fuel processor

Bioethanol; Steam reforming; Fuel cell; Hydrogen (Benito, M. (169) 123)

Gas diffusion electrode

Binary carbon supports; Proton exchange membrane fuel cell; Oxygen reduction reaction; Synergism effect; Fuel cell (Kheirmand, M. (169) 327)

Gas diffusion electrodes

Fuel cell; Portable device; Stack; Air-breathing; Flow-field (Urbani, F. (169) 334)

Gas diffusion layer (GDL)

Water management; Air–water flow pattern; CFD (Jiao, K. (169) 296)

Gasket

Polymer electrolyte membrane fuel cells; Stack failure; Indicators (Husar, A. (169) 85)

Glass-ceramic

Sealing; Interconnect; Crofer 22; SOFC (Pascual, M.J. (169) 40)

Graphite

Electrochemical capacitors; Activated carbon; Organic electrolytes; Intercalation (Wang, H. (169) 375)

H₂-TPR

CuO/CeO₂; CO-PROX; CO-TPR; XPS; Microemulsion (Gamarra, D. (169) 110)

H₃PO₄/Nafion–PBI

High temperature PEMFC; Acid–base polymer complex; Durability; Mechanical failure (Zhai, Y. (169) 259)

High temperature PEMFC

H₃PO₄/Nafion–PBI; Acid–base polymer complex; Durability; Mechanical failure (Zhai, Y. (169) 259)

Hybrid system

PEMFC; Hydrogen; Airport; Vehicle (Fontela, P. (169) 184)

Hydrocarbon reforming

Plasma reaction; Hydrogen production; Alcohol reforming; DBD plasma (Sarmiento, B. (169) 140)

Hydrogen

Bioethanol; Reforming; Bio-energy; Fuel processor; Fuel cell (Benito, M. (169) 167)

Hydrogen

Bioethanol; Steam reforming; Fuel processor; Fuel cell (Benito, M. (169) 123)

Hydrogen

Biogas; Reforming; Fuel cell; Processor; Methane (Benito, M. (169) 177)

Hydrogen

Dark fermentation; Waste treatment; Factorial design; Optimization; Desirability function (Cuetos, M.J. (169) 131)

Hydrogen

DEA; Automotive; Environment (Brey, J.J. (169) 213)

Hydrogen

Ethanol steam reforming; Fuel cells; Nickel catalysts; Cobalt catalysts (Torres, J.A. (169) 158)

Hydrogen

PEMFC; Airport; Vehicle; Hybrid system (Fontela, P. (169) 184)

Hydrogen chloride

Solid oxide fuel cell; Coal syngas; Experimental performance (Tremblay, J.P. (169) 347)

Hydrogen production

Aluminum; Aluminum alloys; Caustic corrosion (Soler, L. (169) 144)

Hydrogen production

Methane decarbonization; Carbon catalysts; Catalyst regeneration (Pinilla, J.L. (169) 103)

Hydrogen production

Ni catalysts; Calcination temperature (Echegoyen, Y. (169) 150)

Hydrogen production

Plasma reaction; Hydrocarbon reforming; Alcohol reforming; DBD plasma (Sarmiento, B. (169) 140)

Hydrogen storage

Magnesium hydrides; Thin films; Mg–Al system (Domènech-Ferrer, R. (169) 117)

Impedance Spectroscopy

Nafion; Ormolytes; Composite membranes; Thermal analysis (Mecheri, B. (169) 247)

In situ structural evolution

Neutron powder diffraction; IT-SOFC; Cathode; K₂NiF₄; Metal–insulator transition (Aguadero, A. (169) 17)

Indicators

Polymer electrolyte membrane fuel cells; Stack failure; Gasket (Husar, A. (169) 85)

Intercalation

Electrochemical capacitors; Graphite; Activated carbon; Organic electrolytes (Wang, H. (169) 375)

Interconnect

Sealing; Glass–ceramic; Crofer 22; SOFC (Pascual, M.J. (169) 40)

Intermediate temperature

SOFC; Anode; Direct oxidation of methane; Copper; Nickel; CeO₂; CGO; Ce–Tb mixed oxide (Hornés, A. (169) 9)

Intermittent

Wind power generation; Spectral analysis; Energy storage; Renewable energy; Reliability (Apt, J. (169) 369)

IT-SOFC

In situ structural evolution; Neutron powder diffraction; Cathode; K₂NiF₄; Metal–insulator transition (Aguadero, A. (169) 17)

- K₂NiF₄**
In situ structural evolution; Neutron powder diffraction; IT-SOFC; Cathode; Metal–insulator transition (Aguadero, A. (169) 17)
- Lead–tin**
 Electrodeposition; Sorbitol–alkaline bath; X-ray spectroscopy; Morphology (Siqueira, J.L.P. (169) 361)
- Li-ion battery**
 Ti(HPO₄)₂·H₂O; Lithium intercalation (Kishore, M.S. (169) 355)
- Lithium intercalation**
 Li-ion battery; Ti(HPO₄)₂·H₂O (Kishore, M.S. (169) 355)
- Magnesium hydrides**
 Thin films; Hydrogen storage; Mg–Al system (Domènec-Ferrer, R. (169) 117)
- Mechanical failure**
 High temperature PEMFC; H₃PO₄/Nafion–PBI; Acid–base polymer complex; Durability (Zhai, Y. (169) 259)
- Membrane**
 PEMFC; Proton conduction; Conductivity; Zeolite; Composites (Sancho, T. (169) 92)
- Membrane degradation**
 Nafion®; Membrane electrode assembly; X-ray photoelectron spectroscopy; Fourier transform infrared spectroscopy; Fenton's test (Chen, C. (169) 288)
- Membrane electrode assembly**
 Membrane degradation; Nafion®; X-ray photoelectron spectroscopy; Fourier transform infrared spectroscopy; Fenton's test (Chen, C. (169) 288)
- Metal–insulator transition**
In situ structural evolution; Neutron powder diffraction; IT-SOFC; Cathode; K₂NiF₄ (Aguadero, A. (169) 17)
- Methane**
 Biogas; Reforming; Hydrogen; Fuel cell; Processor (Benito, M. (169) 177)
- Methane decarbonization**
 Hydrogen production; Carbon catalysts; Catalyst regeneration (Pinilla, J.L. (169) 103)
- Methanol crossover**
 Polymer electrolyte membrane; DMFC; Proton conductivity; Durability; Thermal stability (Neburchilov, V. (169) 221)
- Mg–Al system**
 Magnesium hydrides; Thin films; Hydrogen storage (Domènec-Ferrer, R. (169) 117)
- Microbial fuel cell**
 Waste water treatment; Electricity generation (Rodrigo, M.A. (169) 198)
- Microemulsion**
 CuO/CeO₂; CO-PROX; H₂-TPR; CO-TPR; XPS (Gamarra, D. (169) 110)
- Microemulsion coprecipitation**
 SOFC anodes; Ce–Cu mixed oxides; Freeze-drying (Fuerte, A. (169) 47)
- Miniature PEMFC**
 Energy harvesting; Underwater glider; Thermal engine (Wang, S. (169) 338)
- Modeling**
 Direct methanol fuel cell; Dynamic simulation; Transient response; Pulse loading (Vilar, E. (169) 276)
- Modeling**
 SOFC; Tubular cell; Current collection (Zhu, H. (169) 315)
- Modified carbon paste electrodes**
 Amorphous alloys; Electrocatalysis; Fuel cells (Barranco, J. (169) 71)
- Morphology**
 Lead–tin; Electrodeposition; Sorbitol–alkaline bath; X-ray spectroscopy (Siqueira, J.L.P. (169) 361)
- Multivariable control**
 PEMFC; Predictive control; Dynamic matrix control; Performance improvement (Feroldi, D. (169) 205)
- Nafion®**
 Membrane degradation; Membrane electrode assembly; X-ray photoelectron spectroscopy; Fourier transform infrared spectroscopy; Fenton's test (Chen, C. (169) 288)
- Nafion**
 Ormolytes; Composite membranes; Impedance Spectroscopy; Thermal analysis (Mecheri, B. (169) 247)
- Neutron powder diffraction**
In situ structural evolution; IT-SOFC; Cathode; K₂NiF₄; Metal–insulator transition (Aguadero, A. (169) 17)
- Ni catalysts**
 Hydrogen production; Calcination temperature (Echegoyen, Y. (169) 150)
- Ni–CeO₂–YSZ anode**
 Solid oxide fuel cell (SOFC); Tape casting; Vacuum impregnation (Qiao, J. (169) 253)
- Nickel**
 SOFC; Anode; Direct oxidation of methane; Intermediate temperature; Copper; CeO₂; CGO; Ce-Tb mixed oxide (Hornés, A. (169) 9)
- Nickel catalysts**
 Ethanol steam reforming; Hydrogen; Fuel cells; Cobalt catalysts (Torres, J.A. (169) 158)
- NiO–YSZ composite powder**
 Solid oxide fuel cell; Anode-supported; Yttria stabilized zirconia; Power density; Electrolyte microstructure (Kim, S.-D. (169) 265)
- Optimization**
 Dark fermentation; Hydrogen; Waste treatment; Factorial design; Desirability function (Cuetos, M.J. (169) 131)
- Ordered mesoporous carbon**
 Electrocatalyst; DMFC; CO oxidation; Electrochemical characterization (Calvillo, L. (169) 59)
- Organic electrolytes**
 Electrochemical capacitors; Graphite; Activated carbon; Intercalation (Wang, H. (169) 375)
- Ormolytes**
 Nafion; Composite membranes; Impedance Spectroscopy; Thermal analysis (Mecheri, B. (169) 247)
- Oxygen excess ratio**
 PEMFC; Control; Fuel cell (Vega-Leal, A.P. (169) 194)
- Oxygen reduction reaction**
 Binary carbon supports; Gas diffusion electrode; Proton exchange membrane fuel cell; Synergism effect; Fuel cell (Kheirmand, M. (169) 327)
- PEMFC**
 Catalyst; Cermet; Polarisation curves; Pt-Ru-Ni (Moreno, B. (169) 98)
- PEMFC**
 Control; Fuel cell; Oxygen excess ratio (Vega-Leal, A.P. (169) 194)
- PEMFC**
 Electrocatalyst; Electrospray deposition; Cathode (Chaparro, A.M. (169) 77)
- PEMFC**
 Electrodeposition; Pt₃Co; Pt; Co; Quartz crystal microbalance; Electrocatalyst; Fuel cells (Martín, A.J. (169) 65)
- PEMFC**
 Hydrogen; Airport; Vehicle; Hybrid system (Fontela, P. (169) 184)
- PEMFC**
 Multivariable control; Predictive control; Dynamic matrix control; Performance improvement (Feroldi, D. (169) 205)
- PEMFC**
 Proton conduction; Conductivity; Zeolite; Membrane; Composites (Sancho, T. (169) 92)
- Performance improvement**
 PEMFC; Multivariable control; Predictive control; Dynamic matrix control (Feroldi, D. (169) 205)
- Perovskite**
 BaPrO₃; p-Type conductivity; Proton conductivity; Electrolyte; Electrode (Magrasó, A. (169) 53)
- Perovskite**
 SOFC; Cathodes; Pulsed laser deposition; Electrochemical impedance spectroscopy (Larramendi, I.R.d. (169) 35)
- Plasma reaction**
 Hydrogen production; Hydrocarbon reforming; Alcohol reforming; DBD plasma (Sarmiento, B. (169) 140)

- Polarisation curves
Catalyst; PEMFC; Cermet; Pt-Ru-Ni (Moreno, B. (169) 98)
- Polymer electrolyte membrane
DMFC; Methanol crossover; Proton conductivity; Durability; Thermal stability (Neburchilov, V. (169) 221)
- Polymer electrolyte membrane fuel cell
Direct liquid-feed fuel cell (Demirci, U.B. (169) 239)
- Polymer electrolyte membrane fuel cells
Stack failure; Gasket; Indicators (Husar, A. (169) 85)
- Pore morphology
Electrode property; Dispersion solvent; Proton conductivity; Catalyst ink (Sung, K.A. (169) 271)
- Portable device
Fuel cell; Gas diffusion electrodes; Stack; Air-breathing; Flow-field (Urbani, F. (169) 334)
- Power density
Solid oxide fuel cell; Anode-supported; Yttria stabilized zirconia; NiO-YSZ composite powder; Electrolyte microstructure (Kim, S.-D. (169) 265)
- Predictive control
PEMFC; Multivariable control; Dynamic matrix control; Performance improvement (Feroldi, D. (169) 205)
- Processor
Biogas; Reforming; Hydrogen; Fuel cell; Methane (Benito, M. (169) 177)
- Proton conduction
PEMFC; Conductivity; Zeolite; Membrane; Composites (Sancho, T. (169) 92)
- Proton conductivity
BaPrO₃; p-Type conductivity; Electrolyte; Electrode; Perovskite (Magrasó, A. (169) 53)
- Proton conductivity
Electrode property; Dispersion solvent; Pore morphology; Catalyst ink (Sung, K.A. (169) 271)
- Proton conductivity
Polymer electrolyte membrane; DMFC; Methanol crossover; Durability; Thermal stability (Neburchilov, V. (169) 221)
- Proton exchange membrane fuel cell
Binary carbon supports; Gas diffusion electrode; Oxygen reduction reaction; Synergism effect; Fuel cell (Kheirmand, M. (169) 327)
- Pt
Electrodeposition; Pt₃Co; Co; Quartz crystal microbalance; Electrocatalyst; PEMFC; Fuel cells (Martín, A.J. (169) 65)
- Pt₃Co
Electrodeposition; Pt; Co; Quartz crystal microbalance; Electrocatalyst; PEMFC; Fuel cells (Martín, A.J. (169) 65)
- Pt-Ru-Ni
Catalyst; PEMFC; Cermet; Polarisation curves (Moreno, B. (169) 98)
- p-Type conductivity
BaPrO₃; Proton conductivity; Electrolyte; Electrode; Perovskite (Magrasó, A. (169) 53)
- Pulse loading
Direct methanol fuel cell; Dynamic simulation; Transient response; Modeling (Vilar, E. (169) 276)
- Pulsed laser deposition
SOFC; Cathodes; Perovskite; Electrochemical impedance spectroscopy (Larramendi, I.R.d. (169) 35)
- Quartz crystal microbalance
Electrodeposition; Pt₃Co; Pt; Co; Electrocatalyst; PEMFC; Fuel cells (Martín, A.J. (169) 65)
- Radiation
Solid oxide; Fuel cell; Convection; Radiosity (Sánchez, D. (169) 25)
- Radiosity
Solid oxide; Fuel cell; Convection; Radiation (Sánchez, D. (169) 25)
- Reforming
Biogas; Hydrogen; Fuel cell; Processor; Methane (Benito, M. (169) 177)
- Reliability
Wind power generation; Spectral analysis; Energy storage; Intermittent; Renewable energy (Apt, J. (169) 369)
- Renewable energy
Wind power generation; Spectral analysis; Energy storage; Intermittent; Reliability (Apt, J. (169) 369)
- Sealing
Glass-ceramic; Interconnect; Crofer 22; SOFC (Pascual, M.J. (169) 40)
- Single-chamber
SOFC; Ceria; Cobaltite (Piñol, S. (169) 2)
- SOFC
Anode; Direct oxidation of methane; Intermediate temperature; Copper; Nickel; CeO₂; CGO; Ce-Tb mixed oxide (Hornés, A. (169) 9)
- SOFC
Cathodes; Perovskite; Pulsed laser deposition; Electrochemical impedance spectroscopy (Larramendi, I.R.d. (169) 35)
- SOFC
Sealing; Glass-ceramic; Interconnect; Crofer 22 (Pascual, M.J. (169) 40)
- SOFC
Single-chamber; Ceria; Cobaltite (Piñol, S. (169) 2)
- SOFC
Tubular cell; Current collection; Modeling (Zhu, H. (169) 315)
- SOFC anodes
Ce-Cu mixed oxides; Freeze-drying; Microemulsion coprecipitation (Fuerte, A. (169) 47)
- Solid oxide
Fuel cell; Convection; Radiation; Radiosity (Sánchez, D. (169) 25)
- Solid oxide fuel cell
Anode-supported; Yttria stabilized zirconia; NiO-YSZ composite powder; Power density; Electrolyte microstructure (Kim, S.-D. (169) 265)
- Solid oxide fuel cell
Coal syngas; Experimental performance; Hydrogen chloride (Tremblay, J.P. (169) 347)
- Solid oxide fuel cell (SOFC)
Ni-CeO₂-YSZ anode; Tape casting; Vacuum impregnation (Qiao, J. (169) 253)
- Sorbitol-alkaline bath
Lead-tin; Electrodeposition; X-ray spectroscopy; Morphology (Siqueira, J.L.P. (169) 361)
- Spectral analysis
Wind power generation; Energy storage; Intermittent; Renewable energy; Reliability (Apt, J. (169) 369)
- Stack
Fuel cell; Gas diffusion electrodes; Portable device; Air-breathing; Flow-field (Urbani, F. (169) 334)
- Stack failure
Polymer electrolyte membrane fuel cells; Gasket; Indicators (Husar, A. (169) 85)
- Steam reforming
Bioethanol; Fuel processor; Fuel cell; Hydrogen (Benito, M. (169) 123)
- Synergism effect
Binary carbon supports; Gas diffusion electrode; Proton exchange membrane fuel cell; Oxygen reduction reaction; Fuel cell (Kheirmand, M. (169) 327)
- Tape casting
Solid oxide fuel cell (SOFC); Ni-CeO₂-YSZ anode; Vacuum impregnation (Qiao, J. (169) 253)
- Thermal analysis
Nafion; Ormolytes; Composite membranes; Impedance Spectroscopy (Mecheri, B. (169) 247)
- Thermal engine
Energy harvesting; Miniature PEMFC; Underwater glider (Wang, S. (169) 338)

Thermal stability

Polymer electrolyte membrane; DMFC; Methanol crossover; Proton conductivity; Durability (Neburchilov, V. (169) 221)

Thin films

Magnesium hydrides; Hydrogen storage; Mg-Al system (Domènech-Ferrer, R. (169) 117)

Ti(HPO₄)₂·H₂O

Li-ion battery; Lithium intercalation (Kishore, M.S. (169) 355)

Transient response

Direct methanol fuel cell; Dynamic simulation; Modeling; Pulse loading (Vilar, E. (169) 276)

Tubular cell

SOFC; Current collection; Modeling (Zhu, H. (169) 315)

Underwater glider

Energy harvesting; Miniature PEMFC; Thermal engine (Wang, S. (169) 338)

Vacuum impregnation

Solid oxide fuel cell (SOFC); Ni-CeO₂-YSZ anode; Tape casting (Qiao, J. (169) 253)

Vehicle

PEMFC; Hydrogen; Airport; Hybrid system (Fontela, P. (169) 184)

Waste treatment

Dark fermentation; Hydrogen; Factorial design; Optimization; Desirability function (Cuetos, M.J. (169) 131)

Waste water treatment

Microbial fuel cell; Electricity generation (Rodrigo, M.A. (169) 198)

Water management

Air-water flow pattern; Gas diffusion layer (GDL); CFD (Jiao, K. (169) 296)

Wind power generation

Spectral analysis; Energy storage; Intermittent; Renewable energy; Reliability (Apt, J. (169) 369)

XPS

CuO/CeO₂; CO-PROX; H₂-TPR; CO-TPR; Microemulsion (Gamarra, D. (169) 110)

X-ray photoelectron spectroscopy

Membrane degradation; Nafion®; Membrane electrode assembly; Fourier transform infrared spectroscopy; Fenton's test (Chen, C. (169) 288)

X-ray spectroscopy

Lead-tin; Electrodeposition; Sorbitol-alkaline bath; Morphology (Siqueira, J.L.P. (169) 361)

Yttria stabilized zirconia

Solid oxide fuel cell; Anode-supported; NiO-YSZ composite powder; Power density; Electrolyte microstructure (Kim, S.-D. (169) 265)

Zeolite

PEMFC; Proton conduction; Conductivity; Membrane; Composites (Sancho, T. (169) 92)