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Research outputs

Let's not forget isotope effect when replacing H₂O with D₂O for operando neutron studies – Kinetics and transport considerations in PEM water electrolyzer

Karimi, V., Qvistgaard, C., Hajrizaj, R., Battaglia, D., Saalbrink, J., Trtik, P., Lee, J., Boillat, P., Sharma, R., Kuhn, L. T. & Andersen, S. M., 15. May 2026, In: Applied Catalysis B: Environment and Energy. 385, 14 p., 126335.

Suppress Ru Over-Oxidation Through Oxygen Vacancy Engineering – Showcase With Ni-Modified RuO₂ via Molten-Salt Synthesis

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Shaping low-iridium IrRuO_x electrocatalysts with structural and electronic modulation for proton exchange membrane electrolyzers

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Andersen, S. M., Morgen, P. & Skou, E. M., 3. Jul 2011.

CNF & CNT supported catalyst for Proton Exchange Membrane Fuel Cells

Andersen, S. M., Lund, P., Elina, Y.-R., Pasanen, A., Kauranen, P. & Skou, E. M., 12. Jun 2011.

Activation of Students with Various Teaching Methods

Andersen, S. M., 9. May 2011. 1 p.

Graphitised Carbon Nanofibres as Catalyst Support for PEMFC

Yli-Rantala, E., Pasanen, A., Kauranen, P., Ruiz, V., Borghei, M., Kauppinen, E., Oyarce, A., Lindbergh, G., Lagergren, C., Darab, M., Sunde, S., Thomassen, M., Ma-Andersen, S., Andersen, S. M. & Skou, E., 2011, In: Fuel Cells. 11, 6, p. 715-725 11 p.

Studies on PEM fuel cell noble metal catalyst dissolution

Andersen, S. M., Grahl-Madsen, L. & Skou, E. M., 2011, In: Solid State Ionics. 192, 1, p. 602-606 5 p.

Degradation and contamination of perfluorinated sulfonic acid membrane due to swelling-dehydration cycles

Andersen, S. M., Morgen, P. & Skou, E. M., 30. Sept 2010.

Microscopy studies on proton exchange membrane fuel cell electrodes with different ionomer contents

Ma, S., Solterbeck, C. H., Odgaard, M. & Skou, E. M., 2009, In: Applied Physics A. 96, 3, p. 581-589

Platinum Porous Electrodes for Fuel Cells: with focus on Proton Exchange Membrane Fuel Cells (PEMFCs)

Andersen, S. M., 2009, Odense: Verlag Dr. Müller. 208 p.

Progress on PEMFC noble metal catalyst dissolution

Andersen, S. M. & Skou, E. M., 2009.

Wetting properties of Proton Exchange Membrane Fuel Cell electrodes

Andersen, S. M. & Skou, E. M., 2009.

Studies on PEM Fuel Cell Noble Metal Catalyst Dissolution

Ma, S. & Skou, E. M., 2009.

Characterizing Carbon Nanotube Supported Platinum Catalyst by Electrochemistry

Veltzé, S., Andersen, S. M. & Skou, E. M., 2008. 1 p.

PEMFC Durability Issues

Ma, S., 2008.

PEM Fuel Cell Catalyst and Carbon Durability

Ma, S., 2008.

¹⁹F NMR studies of Nafion™ ionomer adsorption on PEMFC catalysts and supporting carbons

Ma, S., Chen, Q., Jørgensen, F., Stein, P. C. & Skou, E. M., 2007, In: Solid State Ionics. 178, 29-30, p. 1568-1575

CO₂ permeability in Nafion EW1100 at elevated temperature

Ma, S. & Skou, E. M., 2007, In: Solid State Ionics. 178, 7-10, p. 615-619 5 p.

Investigations on Platinum Porous Electrodes for Proton Exchange Membrane Fuel Cells (PEMFCs)

Andersen, S. M., 2007

Microscopy study on proton exchange membrane fuel cell electrodes with different ionomer content

Ma, S. & Skou, E. M., 2007.

¹⁹F-NMR Studies of Nafion™ ionomer Adsorption on PEMFC Catalysts and Supporting Carbons

Ma, S. & Skou, E. M., 2007.

CO₂ Permeability in Nafion® EW1100 at Elevated Temperature

Ma, S. & Skou, E. M., 2006.

Novel method of Proton Exchange Membrane Fuel Cell catalyst characterization

Ma, S. & Skou, E. M., 2006.

Carbon dioxide permeability of proton exchange membranes for fuel cells

Andersen, S. M., Odgaard, M. & Skou, E., 2005, In: Solid State Ionics. 176, 39-40, p. 2923-2927

Investigation on Platinum Catalyst Utilization in Porous Electrodes of MEA for PEMFCs

Ma, S. & Skou, E. M., 2005.

Gas Permeability of PEMs for Fuel cells

Ma, S. & Skou, E. M., 2004.

Activities

I01F-2092 - TiN_xO_y/TiN Supported Ir-Oxide/Ir As Efficient OER Electrocatalyst for Acidic Water Electrolysis

Sharma, R. (Speaker) & Andersen, S. M. (Co-author)

8. Oct 2023 → 12. Oct 2023

Quantification of Degradation Mechanisms in Acidic Water Electrozer Catalysts: Roles of Bulk structure and Surface Chemistry

Sharma, R. (Speaker), Morgen, P. (Co-author), Gyergyek, S. (Co-author) & Andersen, S. M. (Co-author)

4. Jul 2023 → 7. Jul 2023

Study of the catalyst/ionomer interface in PEMFC electrodes through quantification of the degradation mechanisms during an accelerated stress test

Sharma, R. (Speaker) & Andersen, S. M. (Other)

31. Oct 2019 → 1. Nov 2019

Internal Examiner (censor) Individuel studieaktivitet: Genvinding og oprensning af ædelmetaller fra katalysatorer fra tunge køretøjer - i samarbejde med Landson Emission Technologies A/S

Christensen, K. V. (Censor) & Andersen, S. M. (Examiner)
21. Jun 2018

Internal Examiner (censor) bachelor project: Analysis of the filtration of platinum nanoparticles dissolved in hydrochloric acid

Christensen, K. V. (Censor) & Andersen, S. M. (Examiner)
6. Jun 2018

7th International Colloids Conference

Andersen, S. M. (Participant)
18. Jun 2017 → 21. Jun 2017

First International Conference on Electrolysis

Andersen, S. M. (Participant)
12. Jun 2017 → 15. Jun 2017

Danscatt annual meeting 2017

Andersen, S. M. (Participant)
1. Jun 2017 → 2. Jun 2017

6Th International Conference on Fuel Cell & Hydrogen Technology

Andersen, S. M. (Participant)
11. Apr 2017 → 13. Apr 2017

Engineering programmes in Chemical Engineering and Biotechnology

Andersen, S. M. (Guest lecturer)
10. Apr 2017

Den danske brint- og brændselscelledag 2016

Andersen, S. M. (Organizer)
10. Nov 2016

2016 Annual Meeting of the Danish Electrochemical Society

Andersen, S. M. (Participant)
23. Oct 2016 → 24. Oct 2016

Progress on Modificatin of Electrode Interface Structure in Proton Exchange Membrane Fuel cells (PEMFCs)

Andersen, S. M. (Speaker)
9. Jun 2016

DanScatt annual meeting 2016

Andersen, S. M. (Participant)
26. May 2016 → 27. May 2016

International Sociaty of Electrochemistry

Andersen, S. M. (Participant)
31. Aug 2014 → 5. Sept 2014

School of physics and engineering

Andersen, S. M. (Visiting researcher)
16. Mar 2014 → 19. Mar 2014

Electrochemical Conference on Energy & the Environment

Andersen, S. M. (Participant)
13. Mar 2014 → 16. Mar 2014

BIT's 4th Annual Global Congress of Catalysis

Andersen, S. M. (Speaker)

30. Jun 2013

Physical Chemistry Atkins 9th edition (3 chapters) (Journal)

Andersen, S. M. (Peer reviewer)

13. Nov 2012

Medlemskab af Partnerskabet for brint og brændselsceller (External organisation)

Andersen, S. M. (Member)

9. Nov 2012

Communication with publisher (Oxford) - regarding to the teaching book Physical Chemistry Atkins

Andersen, S. M. (Guest lecturer)

5. Nov 2012

Interactions between Nafion® ionomer and catalyst / support materials

Andersen, S. M. (Speaker)

12. Oct 2012

36th International Conference on Improving University Teaching

Andersen, S. M. (Participant)

19. Jul 2011 → 21. Jul 2011

Pedagogical conference, improving university teaching

Andersen, S. M. (Participant)

19. Jul 2011 → 22. Jul 2011

Solid State Ionic Conference - 18

Andersen, S. M. (Participant)

3. Jul 2011 → 8. Jul 2011

Workshop and summer school in connection with NanoduraMEA project

Andersen, S. M. (Participant)

12. Jun 2011

Solid State Ionics (Journal)

Andersen, S. M. (Peer reviewer)

27. May 2011

Adjunktpædagogikum

Andersen, S. M. (Participant)

9. May 2011

Journal of Physics and Chemistry of Solids (Journal)

Andersen, S. M. (Peer reviewer)

7. Feb 2011

Dansk Elektrokemisk Forenings Årsmøde

Andersen, S. M. (Participant)

30. Sept 2010 → 1. Oct 2010

University of Applied Sciences Kiel
Andersen, S. M. (Visiting researcher)
26. Jul 2010 → 27. Jul 2010

Nanoduramea summer school
Andersen, S. M. (Participant)
22. Jun 2010 → 24. Jun 2010

Solid State Ionics (Journal)
Andersen, S. M. (Peer reviewer)
3. Jan 2010

Solid State Ionics (Journal)
Andersen, S. M. (Peer reviewer)
4. Nov 2009

Electrochemical Science and Technology 2009
Andersen, S. M. (Participant)
1. Oct 2009 → 2. Oct 2009

Smart material # 3
Andersen, S. M. (Participant)
18. Aug 2009 → 21. Aug 2009

Solid State Ionics - 17
Andersen, S. M. (Participant)
27. Jun 2009 → 5. Jul 2009

Nanoduramea 2009
Andersen, S. M. (Participant)
7. Jun 2009 → 9. Jun 2009

University of Southern Denmark
Andersen, S. M. (Visiting researcher)
25. May 2009

Udlands studerende udvikling
Andersen, S. M. (Participant)
5. Apr 2009 → 9. Apr 2009

Electrochemical Science and Technology 2008
Andersen, S. M. (Participant)
2. Oct 2008 → 3. Oct 2008

14th International Conference on Solid State Protonic Conductors
Andersen, S. M. (Participant)
7. Sept 2008 → 11. Sept 2008

Fuel Cells Norfa Workshop: New Materials and Technologies for Low Temperature Fuel Cells 2008
Andersen, S. M. (Participant)
13. Aug 2008 → 16. Aug 2008

Summer school: Carbon nanotubes and nanofibers
Andersen, S. M. (Participant)
11. Aug 2008 → 12. Aug 2008

Electrochemical Science and Technology 2007

Andersen, S. M. (Participant)

4. Oct 2007 → 5. Oct 2007

Fuel Cell Durability

Andersen, S. M. (Participant)

19. Sept 2007 → 21. Sept 2007

2nd Smart Materials & Structures

Andersen, S. M. (Participant)

29. Aug 2007 → 31. Aug 2007

Solid State Ionics - 16 (SSI-16)

Andersen, S. M. (Participant)

1. Jul 2007 → 7. Jul 2007

University of Southern Denmark

Andersen, S. M. (Visiting researcher)

2. Apr 2007 → 27. Apr 2007

Advances in Materials for Proton Exchange Membrane Fuel Cell Systems 2007

Andersen, S. M. (Participant)

18. Feb 2007 → 21. Feb 2007

University of Applied Sciences Upper Austria

Andersen, S. M. (Visiting researcher)

5. Feb 2007 → 9. Feb 2007

University of Southern Denmark

Andersen, S. M. (Visiting researcher)

13. Nov 2006 → 12. Dec 2006

Electrochemical Science and Technology 2006

Andersen, S. M. (Participant)

5. Oct 2006 → 6. Oct 2006

Nodic PEMFC 06

Andersen, S. M. (Participant)

25. Sept 2006 → 27. Sept 2006

Solid State Protonic Conductor - 13 (SSPC-13)

Andersen, S. M. (Participant)

4. Sept 2006 → 6. Sept 2006

Impedance Day 2006

Andersen, S. M. (Participant)

29. Mar 2006 → 31. Mar 2006

University of Applied Sciences Upper Austria

Andersen, S. M. (Visiting researcher)

6. Mar 2006 → 11. Mar 2006

Nordic Hydrogen Seminar 2006

Andersen, S. M. (Participant)
6. Feb 2006 → 9. Feb 2006

Energy Camp 05

Andersen, S. M. (Participant)
23. Nov 2005 → 24. Nov 2005

Fuel Cells Norfa Workshop: New Materials and Technologies for Low Temperature Fuel Cells 2005

Andersen, S. M. (Participant)
30. Aug 2005 → 4. Sept 2005

Summer School: Hands-On Nano-Technology 2005

Andersen, S. M. (Participant)
25. Jul 2005 → 19. Aug 2005

Electrochemistry Summer School 2005

Andersen, S. M. (Participant)
25. Jun 2005 → 1. Jul 2005

Advances in Materials for Proton Exchange Membrane Fuel Cell Systems 2005

Andersen, S. M. (Participant)
20. Feb 2005 → 23. Feb 2005

Solid State Protonic Conductor - 12 (SSPC-12)

Andersen, S. M. (Participant)
15. Aug 2004 → 19. Aug 2004

Fuel Cells Norfa Workshop: New Materials and Technologies for Low Temperature Fuel Cells 2004

Andersen, S. M. (Participant)
12. Aug 2004 → 15. Aug 2004