SÃ¸ren Bredmose Simonsen

List of Publications by Year
in descending order

55 papers	2,439 citations	304743 22 h-index	197818 49 g-index
57 all docs	57 docs citations	57 times ranked	3736 citing authors

#	Article	IF	Citations
1	Eliminating degradation in solid oxide electrochemical cells by reversible operation. Nature Materials, 2015, 14, 239-244.	27.5	394
2	Direct Observations of Oxygen-induced Platinum Nanoparticle Ripening Studied by In Situ TEM. Journal of the American Chemical Society, 2010, 132, 7968-7975.	13.7	374
3	Ostwald ripening in a Pt/SiO2 model catalyst studied by in situ TEM. Journal of Catalysis, 2011, 281, 147-155.	6.2	181
4	Substrate Sizeâ€Selective Catalysis with Zeoliteâ€Encapsulated Gold Nanoparticles. Angewandte Chemie - International Edition, 2010, 49, 3504-3507.	13.8	160
5	Enhancement of the chemical stability in confinedÂÎ´-Bi2O3. Nature Materials, 2015, 14, 500-504.	27.5	148
6	Structureâ€“activity relationships of Pt/Al2O3 catalysts for CO and NO oxidation at diesel exhaust conditions. Applied Catalysis B: Environmental, 2012, 126, 315-325.	20.2	136
7	Investigating Particle Size Effects in Catalysis by Applying a Size-Controlled and Surfactant-Free Synthesis of Colloidal Nanoparticles in Alkaline Ethylene Glycol: Case Study of the Oxygen Reduction Reaction on Pt. ACS Catalysis, 2018, 8, 6627-6635.	11.2	119
8	Alloyed Ni-Fe nanoparticles as catalysts for NH3 decomposition. Applied Catalysis A: General, 2012, 447-448, 22-31.	4.3	81
9	Analysis of the Interphase on Carbon Black Formed in High Voltage Batteries. Journal of the Electrochemical Society, 2015, 162, A1289-A1296.	2.9	65
10	Effect of Particle Morphology on the Ripening of Supported Pt Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 5646-5653.	3.1	61
11	Boosting the performance and durability of Ni/YSZ cathode for hydrogen production at high current densities via decoration with nano-sized electrocatalysts. Nanoscale, 2019, 11, 4394-4406.	5.6	56
12	Colloids for Catalysts: A Concept for the Preparation of Superior Catalysts of Industrial Relevance. Angewandte Chemie - International Edition, 2018, 57, 12338-12341.	13.8	53
13	The Oxygen Reduction Reaction on Pt: Why Particle Size and Interparticle Distance Matter. ACS Catalysis, 2021, 11, 7144-7153.	11.2	49
14	Electron microscopy investigations of changes in morphology and conductivity of LiFePO4/C electrodes. Journal of Power Sources, 2016, 307, 259-269.	7.8	48
15	High-Performance Microchanneled Asymmetric Gd_{0.1}Ce_{0.9}O_{1.95â^Î´}â€“La_{0.6}Sr_{0.4}FeO_{3âˆ’Î´}-Based Membranes for Oxygen Separation. ACS Applied Materials & Interfaces, 2016, 8, 4548-4560.	8.5	33
16	Monovalent Alkali Cations: Simple and Eco-Friendly Stabilizers for Surfactant-Free Precious Metal Nanoparticle Colloids. ACS Sustainable Chemistry and Engineering, 2019, 7, 13680-13686.	6.7	29
17	Controlled Synthesis of Surfactantâ€Free Waterâ€Dispersible Colloidal Platinum Nanoparticles by the Co4Cat Process. ChemSusChem, 2019, 12, 1229-1239.	6.8	27
18	Selfâ€Standing Nanofiber Electrodes with Ptâ€“Co Derived from Electrospun Zeolitic Imidazolate Framework for High Temperature PEM Fuel Cells. Advanced Functional Materials, 2021, 31, 2006771.	14.9	27

#	ARTICLE	IF	CITATIONS
19	Solventâ€Dependent Growth and Stabilization Mechanisms of Surfactantâ€Free Colloidal Pt Nanoparticles. Chemistry - A European Journal, 2020, 26, 9012-9023.	3.3	26
20	Simulation, design and proof-of-concept of a two-stage continuous hydrothermal flow synthesis reactor for synthesis of functionalized nano-sized inorganic composite materials. Journal of Supercritical Fluids, 2016, 117, 1-12.	3.2	25
21	Quantification of tip-broadening in non-contact atomic force microscopy with carbon nanotube tips. Nanotechnology, 2012, 23, 405705.	2.6	24
22	Effects of Strong Cathodic Polarization of the Ni-YSZ Interface. Journal of the Electrochemical Society, 2016, 163, F1217-F1227.	2.9	22
23	Complementary analyses of aging in a commercial LiFePO4/graphite 26650 cell. Electrochimica Acta, 2018, 284, 454-468.	5.2	22
24	Advanced electrochemical investigations of niobium modified Li2ZnTi3O8 lithium ion battery anode materials. Journal of Power Sources, 2020, 462, 228186.	7.8	20
25	Transformation and migration in secondary zincâ€“air batteries studied by in situ synchrotron X-ray diffraction and X-ray tomography. Journal of Materials Chemistry A, 2019, 7, 6459-6466.	10.3	19
26	Environmental TEM study of the dynamic nanoscaled morphology of NiO/YSZ during reduction. Applied Catalysis A: General, 2015, 489, 147-154.	4.3	18
27	Surfactant-free synthesis of size controlled platinum nanoparticles: Insights from in situ studies. Applied Surface Science, 2021, 549, 149263.	6.1	18
28	Silver Modified Cathodes for Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F79-F88.	2.9	16
29	Coarsening of Pd nanoparticles in an oxidizing atmosphere studied by in situ TEM. Surface Science, 2016, 648, 278-283.	1.9	15
30	UV-induced syntheses of surfactant-free precious metal nanoparticles in alkaline methanol and ethanol. Nanoscale Advances, 2020, 2, 2288-2292.	4.6	15
31	Highly Structured Nanofiber Zeolite Materials for Biogas Upgrading. Energy Technology, 2020, 8, 1900781.	3.8	13
32	Colloids for Catalysts: A Concept for the Preparation of Superior Catalysts of Industrial Relevance. Angewandte Chemie, 2018, 130, 12518-12521.	2.0	12
33	A TEM study of morphological and structural degradation phenomena in LiFePO4-CB cathodes. International Journal of Energy Research, 2016, 40, 2022-2032.	4.5	11
34	Comparison of ultramicrotomy and focused-ion-beam for the preparation of TEM and STEM cross section of organic solar cells. Applied Surface Science, 2016, 389, 462-468.	6.1	10
35	Effect of Fe on high performing nanostructured Ni/Gd-doped ceria electrocatalysts. Solid State Ionics, 2019, 340, 115019.	2.7	10
36	Methods for Calibration of Specimen Temperature During In Situ Transmission Electron Microscopy Experiments. Microscopy and Microanalysis, 2020, 26, 3-17.	0.4	10

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37	Inhibition of Ostwald ripening through surface switching species during potentiodynamic dissolution of platinum nanoparticles as an efficient strategy for platinum group metal (PGM) recovery. Electrochimica Acta, 2019, 321, 134662.	5.2	9
38	On the Properties and Long-Term Stability of Infiltrated Lanthanum Cobalt Nickelates (LCN) in Solid Oxide Fuel Cell Cathodes. Journal of the Electrochemical Society, 2017, 164, F748-F758.	2.9	8
39	Coarsening of carbon black supported Pt nanoparticles in hydrogen. Nanotechnology, 2017, 28, 475710.	2.6	8
40	Commercial Spirits for Surfactant-Free Syntheses of Electro-Active Platinum Nanoparticles. Sustainable Chemistry, 2021, 2, 1-7.	4.7	8
41	Continuous Hydrothermal Flow Synthesis of LaCrO₃ in Supercritical Water and Its Application in Dual-Phase Oxygen Transport Membranes. Industrial & Engineering Chemistry Research, 2018, 57, 2123-2130.	3.7	7
42	Size effect studies in catalysis: a simple surfactant-free synthesis of sub 3Ânm Pd nanocatalysts supported on carbon. RSC Advances, 2018, 8, 33794-33797.	3.6	7
43	Water transport in polymer composites through swelling-induced networks of hydrogel particles. Soft Matter, 2020, 16, 8254-8261.	2.7	7
44	Continuous Hydrothermal Flow Synthesis of Co_{1â€“x}Ni_xFe₂O₄ (x = 0â€“0.8) Nanoparticles and Their Catalytic Properties for CO Oxidation and Oxygen Evolution Reaction. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2018, 644, 1727-1733.	1.2	6
45	Hybrid inks for 3D printing of tall BaTiO3-based ceramics. Open Ceramics, 2021, 6, 100110.	2.0	6
46	In Situ TEM Analysis of a Symmetric Solid Oxide Cell in Oxygen and Vacuum â€“ Cation Diffusion Observations. ECS Transactions, 2017, 75, 123-133.	0.5	5
47	Surfactant-free syntheses and pair distribution function analysis of osmium nanoparticles. Beilstein Journal of Nanotechnology, 2022, 13, 230-235.	2.8	5
48	Hydrothermal Synthesis, Characterization, and Sintering Behavior of Core-Shell Particles: A Principle Study on Lanthanum Strontium Cobaltite Coated with Nanosized Gadolinium Doped Ceria. Ceramics, 2018, 1, 246-260.	2.6	3
49	Impact of cation redox chemistry on continuous hydrothermal synthesis of 2D-Ni(Co/Fe) hydroxides. Reaction Chemistry and Engineering, 2019, 4, 2060-2073.	3.7	3
50	Co oxidation state at LSC-YSZ interface in model solid oxide electrochemical cell. Solid State Ionics, 2021, 359, 115531.	2.7	3
51	Structural Characterization of Membrane-Electrode-Assemblies in High Temperature Polymer Electrolyte Membrane Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F1105-F1111.	2.9	1
52	Electrospun nanofiber materials for energy and environmental applications. Energy Procedia, 2019, 158, 6723-6724.	1.8	1
53	Nanofiber Electrodes: Selfâ€Standing Nanofiber Electrodes with Ptâ€“Co Derived from Electrospun Zeolitic Imidazolate Framework for High Temperature PEM Fuel Cells (Adv. Funct. Mater. 7/2021). Advanced Functional Materials, 2021, 31, 2170047.	14.9	0
54	Long Term Stability Investigation of Solid Oxide Electrolysis Cell with Infiltrated Porous YSZ Air Electrode Under High Current. ECS Meeting Abstracts, 2015, , .	0.0	0

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55	In Situ TEM Study of the Coarsening of Carbon Black Supported Pt Nanoparticles in Hydrogen. ECS Meeting Abstracts, 2017, , .	0.0	0