

# Anja Bieberle-HÃ¼tter

## List of Publications by Year in descending order

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71  
papers

3,486  
citations

159358

30  
h-index

138251

58  
g-index

77  
all docs

77  
docs citations

77  
times ranked

2996  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review on microfabricated micro-solid oxide fuel cell membranes. Journal of Power Sources, 2009, 194, 119-129.	4.0	378
2	Thin films for micro solid oxide fuel cells. Journal of Power Sources, 2007, 173, 325-345.	4.0	302
3	The Electrochemistry of Ni Pattern Anodes Used as Solid Oxide Fuel Cell Model Electrodes. Journal of the Electrochemical Society, 2001, 148, A646.	1.3	262
4	A micro-solid oxide fuel cell system as battery replacement. Journal of Power Sources, 2008, 177, 123-130.	4.0	205
5	Modelling Study of Surface Reactions, Diffusion, and Spillover at a Ni/YSZ Patterned Anode. Journal of the Electrochemical Society, 2009, 156, B663.	1.3	174
6	State-space modeling of the anodic SOFC system Ni, H <sub>2</sub> ↔ H <sub>2</sub> O ↔ YSZ. Solid State Ionics, 2002, 146, 23-41.	1.3	143
7	Micro Solid Oxide Fuel Cells on Glass Ceramic Substrates. Advanced Functional Materials, 2008, 18, 3158-3168.	7.8	138
8	Oxygen evolution reaction (OER) mechanism under alkaline and acidic conditions. JPhys Energy, 2021, 3, 026001.	2.3	121
9	Oxygen Evolution at Hematite Surfaces: The Impact of Structure and Oxygen Vacancies on Lowering the Overpotential. Journal of Physical Chemistry C, 2016, 120, 18201-18208.	1.5	107
10	Reaction mechanism of Ni pattern anodes for solid oxide fuel cells. Solid State Ionics, 2000, 135, 337-345.	1.3	99
11	Microscopic and Nanoscopic Three-Phase Boundaries of Platinum Thin-Film Electrodes on YSZ Electrolyte. Advanced Functional Materials, 2011, 21, 565-572.	7.8	89
12	Agglomeration of Pt thin films on dielectric substrates. Physical Review B, 2010, 82, .	1.1	87
13	Modeling and Simulations in Photoelectrochemical Water Oxidation: From Single Level to Multiscale Modeling. ChemSusChem, 2016, 9, 1223-1242.	3.6	87
14	Micro-solid oxide fuel cells: status, challenges, and chances. Monatshefte für Chemie, 2009, 140, 975-983.	0.9	66
15	Tailoring of La <sub>x</sub> Sr <sub>1-x</sub> Co <sub>y</sub> Fe <sub>1-y</sub> O <sub>3</sub> Nanostructure by Pulsed Laser Deposition. Advanced Functional Materials, 2011, 21, 2764-2775.	7.8	66
16	Electrical and electrochemical characterization of microstructured thin film La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>3</sub> electrodes. Solid State Ionics, 2006, 177, 1969-1975.	1.3	65
17	Challenges of modeling nanostructured materials for photocatalytic water splitting. Chemical Society Reviews, 2022, 51, 3794-3818.	18.7	64
18	An investigation of the oxygen reduction reaction mechanism of La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3</sub> using patterned thin films. Solid State Ionics, 2012, 206, 7-16.	1.3	63

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19	Electrochemical water oxidation on WO <sub>3</sub> surfaces: A density functional theory study. Catalysis Today, 2019, 321-322, 94-99.	2.2	55
20	Simple and Fast High-Yield Synthesis of Silver Nanowires. Nano Letters, 2020, 20, 5759-5764.	4.5	55
21	Physical and Chemical Defects in WO <sub>3</sub> Thin Films and Their Impact on Photoelectrochemical Water Splitting. ACS Applied Energy Materials, 2018, 1, 5887-5895.	2.5	53
22	Boosting the Performance of WO <sub>3</sub> /n-Si Heterostructures for Photoelectrochemical Water Splitting: from the Role of Si to Interface Engineering. Advanced Energy Materials, 2019, 9, 1900940.	10.2	48
23	Orientation Sensitivity of Oxygen Evolution Reaction on Hematite. Journal of Physical Chemistry C, 2016, 120, 28694-28700.	1.5	42
24	Micro-hotplates—A platform for micro-solid oxide fuel cells. Journal of Power Sources, 2007, 166, 143-148.	4.0	35
25	Microstructures of YSZ and CGO Thin Films Deposited by Spray Pyrolysis: Influence of Processing Parameters on the Porosity. Advanced Functional Materials, 2012, 22, 3509-3518.	7.8	35
26	Processing of Foturan® glass ceramic substrates for micro-solid oxide fuel cells. Journal of the European Ceramic Society, 2012, 32, 3229-3238.	2.8	35
27	Crystallization and Microstructure of Yttria-Stabilized Zirconia Thin Films Deposited by Spray Pyrolysis. Advanced Functional Materials, 2011, 21, 3967-3975.	7.8	34
28	Characterization of sputter-deposited WO <sub>3</sub> and CeO <sub>2</sub> -TiO <sub>2</sub> thin films for electrochromic applications. Thin Solid Films, 2001, 392, 134-141.	0.8	31
29	Flame spray deposition of La <sub>0.6</sub> Sr <sub>0.4</sub> CoO <sub>3</sub> thin films: Microstructural characterization, electrochemical performance and degradation. Journal of Power Sources, 2010, 195, 8152-8161.	4.0	31
30	Thin film growth of yttria stabilized zirconia by aerosol assisted chemical vapor deposition. Journal of Power Sources, 2012, 202, 47-55.	4.0	31
31	Understanding the Impact of Different Types of Surface States on Photoelectrochemical Water Oxidation: A Microkinetic Modeling Approach. ACS Catalysis, 2020, 10, 14649-14660.	5.5	31
32	Fabrication and structural characterization of interdigitated thin film La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>3</sub> (LSCO) electrodes. Journal of Electroceramics, 2006, 16, 151-157.	0.8	30
33	Electrochemical Characterization of La <sub>0.58</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3</sub> Thin Film Electrodes Prepared by Pulsed Laser Deposition. Journal of the Electrochemical Society, 2012, 159, B471-B482.	1.3	29
34	Fabrication and electrochemical characterization of planar Pt-CGO microstructures. Acta Materialia, 2008, 56, 177-187.	3.8	27
35	Impact of substrate material and annealing conditions on the microstructure and chemistry of yttria-stabilized-zirconia thin films. Journal of Power Sources, 2011, 196, 7372-7382.	4.0	22
36	A thermally self-sustained micro-power plant with integrated micro-solid oxide fuel cells, micro-reformer and functional micro-fluidic carrier. Journal of Power Sources, 2014, 258, 434-440.	4.0	22

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37	Anti-Ferromagnetic RuO <sub>2</sub> : A Stable and Robust OER Catalyst over a Large Range of Surface Terminations. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1337-1345.	1.5	21
38	From Geometry to Activity: A Quantitative Analysis of WO <sub>3</sub> /Si Micropillar Arrays for Photoelectrochemical Water Splitting. <i>Advanced Functional Materials</i> , 2020, 30, 1909157.	7.8	20
39	Oxygen incorporation in porous thin films of strontium doped lanthanum ferrite. <i>Journal of Electroceramics</i> , 2011, 27, 134-142.	0.8	19
40	The impact of etching during microfabrication on the microstructure and the electrical conductivity of gadolinia-doped ceria thin films. <i>Journal of Power Sources</i> , 2011, 196, 6070-6078.	4.0	19
41	Why does NiOOH cocatalyst increase the oxygen evolution activity of $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> ? <i>Journal of Chemical Physics</i> , 2019, 150, 041729.	1.2	19
42	Impedance Spectra and Surface Coverages Simulated Directly from the Electrochemical Reaction Mechanism: A Nonlinear State-Space Approach. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9981-9992.	1.5	16
43	Micro-solid oxide fuel cells using free-standing 3mol.% yttria-stabilised-tetragonal-zirconia-polycrystal electrolyte foils. <i>Journal of Power Sources</i> , 2011, 196, 10069-10073.	4.0	15
44	The electrochemistry of iron oxide thin films nanostructured by high ion flux plasma exposure. <i>Electrochimica Acta</i> , 2017, 258, 709-717.	2.6	15
45	Nonlinear oxidation kinetics of nickel cermets. <i>Acta Materialia</i> , 2011, 59, 6239-6245.	3.8	13
46	Syngas generation from n-butane with an integrated MEMS assembly for gas processing in micro-solid oxide fuel cell systems. <i>Lab on A Chip</i> , 2012, 12, 4894.	3.1	13
47	Three dimensional arrays of hollow gadolinia-doped ceria microspheres prepared by r.f. magnetron sputtering employing PMMA microsphere templates. <i>Journal of Electroceramics</i> , 2006, 17, 695-699.	0.8	12
48	Monolayer Nitrides Doped with Transition Metals as Efficient Catalysts for Water Oxidation: The Singular Role of Nickel. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26289-26298.	1.5	12
49	Operando attenuated total reflection Fourier-transform infrared (ATR-FTIR) spectroscopy for water splitting. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 133001.	1.3	12
50	Micro-fabrication of patterned LSCF thin-film cathodes with gold current collectors. <i>Solid State Ionics</i> , 2011, 192, 619-626.	1.3	11
51	Analyzing a micro-solid oxide fuel cell system by global energy balances. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 10318-10327.	3.8	11
52	Nanostructuring of iron thin films by high flux low energy helium plasma. <i>Thin Solid Films</i> , 2017, 631, 50-56.	0.8	11
53	A multiscale modelling approach to elucidate the mechanism of the oxygen evolution reaction at the hematite-water interface. <i>Faraday Discussions</i> , 2021, 229, 89-107.	1.6	11
54	Photoelectrochemical properties of plasma-induced nanostructured tungsten oxide. <i>Applied Surface Science</i> , 2022, 580, 151979.	3.1	10

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55	Electrical conductivity and crystallization of amorphous bismuth ruthenate thin films deposited by spray pyrolysis. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 13933.	1.3	9
56	Tailoring the Performance of ZnO for Oxygen Evolution by Effective Transition Metal Doping. <i>ChemSusChem</i> , 2021, 14, 3064-3073.	3.6	9
57	Characterization of thin films for solid oxide fuel cells facilitated by micropatterning. <i>Scripta Materialia</i> , 2011, 65, 84-89.	2.6	7
58	Electrochemistry of Sputtered Hematite Photoanodes: A Comparison of Metallic DC versus Reactive RF Sputtering. <i>ACS Omega</i> , 2019, 4, 9262-9270.	1.6	7
59	The importance of charge redistribution during electrochemical reactions: a density functional theory study of silver orthophosphate ( $\text{Ag}_3\text{PO}_4$ ). <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9531-9537.	1.3	7
60	Enhanced electrochemical water oxidation: the impact of nanoclusters and nanocavities. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 31300-31305.	1.3	6
61	Charge carrier dynamics and photocatalytic activity of {111} and {100} faceted $\text{Ag}_3\text{PO}_4$ particles. <i>Journal of Chemical Physics</i> , 2020, 152, 244710.	1.2	6
62	Ostwald Ripening and Oxidation Kinetics of Nickel Gadolinia Doped Ceria Anodes. <i>ECS Transactions</i> , 2009, 25, 2057-2060.	0.3	4
63	Relating the 3D Geometry and Photoelectrochemical Activity of $\text{WO}_3$ -Loaded n-Si Nanowires: Design Rules for Photoelectrodes. <i>ACS Applied Energy Materials</i> , 2020, 3, 9628-9634.	2.5	3
64	Foturan® Glass Ceramic - a Substrate for Power Delivering Free-standing $\mu\text{-SOFC}$ Membranes. <i>ECS Transactions</i> , 2009, 25, 983-988.	0.3	1
65	Guidelines for Thin Film Usage and Microfabrication for Solid Oxide Fuel Cell Application. <i>ECS Transactions</i> , 2009, 25, 925-930.	0.3	1
66	Miniaturized Low-temperature Solid Oxide Fuel Cells with an Yttria-stabilized-zirconia Foil Electrolyte. <i>ECS Transactions</i> , 2009, 25, 989-993.	0.3	1
67	Micro-Hotplate Devices for Micro-SOFC. <i>ECS Transactions</i> , 2007, 7, 421-427.	0.3	0
68	Phase Transformation in Spray Pyrolysis Yttria-stabilized Zirconia Thin Films. <i>ECS Transactions</i> , 2009, 25, 1551-1554.	0.3	0
69	Electrochemical Characterization of Micro-Patterned $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_3$ Thin Film Structures on Fused Silica. <i>ECS Transactions</i> , 2009, 25, 2391-2396.	0.3	0
70	FUEL CELLS – SOLID OXIDE FUEL CELLS   Micro Cells. , 2009, , 148-157.		0
71	Fabrication of Micro Solid Oxide Fuel Cell by Thin Film Processing Hybridization: I. Multilayer Structure of Sputtered YSZ Thin Film Electrolyte and Ni-Based Anodes deposited by Spray Pyrolysis. <i>Journal of the Korean Ceramic Society</i> , 2007, 44, 589-595.	1.1	0