Martin Andersson

List of Publications by Year
in descending order

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112 papers	2,635 citations	236925 25 h-index	197818 49 g-index
116 all docs	116 docs citations	116 times ranked	2381 citing authors

#	Article	IF	Citations
1	Impact of the Temperature on the Proton Conductivity and Power Output of a PEFC Operating at High Current Densities. IOP Conference Series: Earth and Environmental Science, 2022, 994, 012006.	0.3	0
2	(Digital Presentation) Temperature-Dependent Study for Electrochemical Surface Area on a Catalyst Layer Used in a PEFC. ECS Transactions, 2022, 108, 111-118.	0.5	0
3	(Digital Presentation) Temperature-Dependent Study for Electrochemical Surface Area on a Catalyst Layer Used in a PEFC. ECS Meeting Abstracts, 2022, MA2022-01, 1510-1510.	0.0	0
4	(Digital Presentation) Temperature-Dependent Study for Hydrogen Permeability of a Polymer Electrolyte Membrane Used in a PEFC. ECS Meeting Abstracts, 2022, MA2022-01, 1492-1492.	0.0	0
5	Analysis of Thermal Stress in a Solid Oxide Fuel Cell Due to the Sulfur Poisoning Interface of the Electrolyte and Cathode. Energy & Fuels, 2021, 35, 2674-2682.	5.1	6
6	Numerical simulation of solid oxide fuel cells comparing different electrochemical kinetics. International Journal of Energy Research, 2021, 45, 12980-12995.	4.5	16
7	A multiâ€input and singleâ€output voltage control for a polymer electrolyte fuel cell system using model predictive control method. International Journal of Energy Research, 2021, 45, 12854-12863.	4.5	8
8	System behavior prediction by artificial neural network algorithm of a methanol steam reformer for polymer electrolyte fuel cell stack use. Fuel Cells, 2021, 21, 279-289.	2.4	3
9	Transport Parameter Correlations for Digitally Created PEFC Gas Diffusion Layers by Using OpenPNM. Processes, 2021, 9, 1141.	2.8	3
10	Simulation of a Flat-Tube Solid Oxide Fuel Cell with Symmetric Double-Sided Cathode Considering Different Fuel Compositions. ECS Meeting Abstracts, 2021, MA2021-03, 288-288.	0.0	0
11	A-Asterisk Algorithm as an Alternative to Evaluate the Geometric Tortuosity in Digitally Created SOFC Anodes. ECS Meeting Abstracts, 2021, MA2021-03, 113-113.	0.0	0
12	A-Asterisk Algorithm as an Alternative to Evaluate the Geometric Tortuosity in Digitally Created SOFC Anodes. ECS Transactions, 2021, 103, 1665-1671.	0.5	1
13	Continuum scale modelling and complementary experimentation of solid oxide cells. Progress in Energy and Combustion Science, 2021, 85, 100902.	31.2	58
14	Parametric study for electrode microstructure influence on SOFC performance. International Journal of Hydrogen Energy, 2021, 46, 37440-37459.	7.1	16
15	Combined solar and membrane drying technologies for sustainable fruit preservation in low-income countries â€“ prototype development, modelling, and testing. Solar Energy Advances, 2021, 1, 100006.	3.0	1
16	Electrochemical Synthesis of Ammonia Based on a Perovskite LaCrO 3 Catalyst. ChemCatChem, 2020, 12, 731-735.	3.7	22
17	Empirical correlations for the performance of a PEFC considering relative humidity of fuel and oxidant gases. International Journal of Hydrogen Energy, 2020, 45, 29763-29773.	7.1	6
18	Progress in the use of electrospun nanofiber electrodes for solid oxide fuel cells: a review. Reviews in Chemical Engineering, 2020, 36, 879-931.	4.4	11

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19	Dynamic modelling and controlling strategy of polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2020, 45, 29718-29729.	7.1	25
20	Electrospun fabrication of nanofibers as high-performance cathodes of solid oxide fuel cells. Ceramics International, 2020, 46, 6969-6972.	4.8	17
21	Diffusion parameter correlations for PEFC gas diffusion layers considering the presence of a water-droplet. International Journal of Hydrogen Energy, 2020, 45, 29824-29831.	7.1	9
22	Thermal stress analysis at the interface of cathode and electrolyte in solid oxide fuel cells. International Communications in Heat and Mass Transfer, 2020, 118, 104831.	5.6	11
23	Polymer electrolyte fuel cell modeling - A comparison of two models with different levels of complexity. International Journal of Hydrogen Energy, 2020, 45, 19761-19777.	7.1	14
24	A Detailed Analysis of Internal Resistance of a PEFC Comparing High and Low Humidification of the Reactant Gases. Frontiers in Energy Research, 2020, 8, .	2.3	16
25	Temperature Impact on the Internal Resistance of a Polymer Electrolyte Fuel Cell Considering the Electrochemical Impedance Spectroscopy Diagnosis. ECS Transactions, 2020, 96, 183-190.	0.5	7
26	Temperature control strategy for polymer electrolyte fuel cells. International Journal of Energy Research, 2020, 44, 4352-4365.	4.5	8
27	High-performance solid oxide fuel cells with fiber-based cathodes for low-temperature operation. International Journal of Hydrogen Energy, 2020, 45, 6949-6957.	7.1	28
28	Hydrogen and Hydrogen-Rich Fuels: Production and Conversion to Electricity. Green Energy and Technology, 2020, , 219-233.	0.6	1
29	Heat and Mass Transfer in Fuel Cells and Stacks. , 2020, , 485-511.		3
30	Combined Two-phase Co-flow and Counter-flow in a Gas Channel/Porous Transport Layer Assembly. ECS Transactions, 2020, 98, 305-315.	0.5	2
31	Simulation of a Double-Sided Cathode SOFC Comparing Different Electrochemical Reaction Kinetics. ECS Meeting Abstracts, 2020, MA2020-02, 2504-2504.	0.0	0
32	Combined Two-phase Co-flow and Counter-flow in a Gas Channel/Porous Transport Layer Assembly. ECS Meeting Abstracts, 2020, MA2020-02, 2213-2213.	0.0	0
33	Voltage Control for a Polymer Electrolyte Fuel Cell System By Model Predictive Control Controller. ECS Meeting Abstracts, 2020, MA2020-02, 2191-2191.	0.0	0
34	Dynamic contact angle modeling of droplet reattachment at the gas channel wall in polymer electrolyte fuel cells. ETransportation, 2019, 1, 100003.	14.8	20
35	Impact of Carbon Deposition on Diffusion Parameters in Porous Anodes of Solid Oxide Fuel Cells Using the Lattice Boltzmann Method. ECS Transactions, 2019, 91, 2023-2030.	0.5	2
36	Modeling and Control Strategies of Proton Exchange Membrane Fuel Cells. Energy Procedia, 2019, 159, 54-59.	1.8	3

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37	Impact of water-drop presence on diffusion parameters of PEFC gas diffusion layers. Energy Procedia, 2019, 158, 1400-1405.	1.8	7
38	Modeling of droplet detachment using dynamic contact angles in polymer electrolyte fuel cell gas channels. International Journal of Hydrogen Energy, 2019, 44, 11088-11096.	7.1	27
39	A comparative study between D2Q9 and D2Q5 lattice Boltzmann scheme for mass transport phenomena in porous media. Computers and Mathematics With Applications, 2019, 78, 2886-2896.	2.7	10
40	Polymer electrolyte fuel cell system level modelling and simulation of transient behavior. ETransportation, 2019, 2, 100030.	14.8	24
41	Performance experimental data of a polymer electrolyte fuel cell considering the variation of the relative humidity of reactants gases. Data in Brief, 2019, 27, 104727.	1.0	2
42	Computational simulation data using the Lattice Boltzmann method to generate correlations for gas diffusion layer parameters. Data in Brief, 2019, 27, 104688.	1.0	1
43	Thermal stress analysis of sulfur deactivated solid oxide fuel cells. Journal of Power Sources, 2018, 379, 134-143.	7.8	27
44	Mechanism of chromium poisoning the conventional cathode material for solid oxide fuel cells. Journal of Power Sources, 2018, 381, 26-29.	7.8	28
45	Effect of the Electrochemical Active Site on Thermal Stress in Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2018, 165, F105-F113.	2.9	9
46	Interface resolving two-phase flow simulations in gas channels relevant for polymer electrolyte fuel cells using the volume of fluid approach. International Journal of Hydrogen Energy, 2018, 43, 2961-2976.	7.1	28
47	A suitable width-size of a channel flow for obtaining the velocity profiles by using the Lattice Boltzmann method. Journal of Physics: Conference Series, 2018, 1141, 012054.	0.4	0
48	Thermal Stress Analysis of Solid Oxide Fuel Cells with Chromium Poisoning Cathodes. Journal of the Electrochemical Society, 2018, 165, F1224-F1231.	2.9	7
49	Simple and Complex Polymer Electrolyte Fuel Cell Stack Models: A Comparison. ECS Transactions, 2018, 86, 287-300.	0.5	6
50	Coupling of Lattice Boltzmann and Volume of Fluid Approaches to Study the Droplet Behavior at the Gas Diffusion Layer/Gas Channel Interface. ECS Transactions, 2018, 86, 329-336.	0.5	8
51	Modeling and synchrotron imaging of droplet detachment in gas channels of polymer electrolyte fuel cells. Journal of Power Sources, 2018, 404, 159-171.	7.8	34
52	Stability Issues of Fuel Cell Models in the Activation and Concentration Regimes. Journal of Electrochemical Energy Conversion and Storage, 2018, 15, .	2.1	12
53	Modeling of solid oxide fuel cells with optimized interconnect designs. International Journal of Heat and Mass Transfer, 2018, 125, 506-514.	4.8	28
54	Coupling of Lattice Boltzmann and Volume of Fluid Approaches to Study the Droplet Behavior at the Gas Diffusion Layer/Gas Channel Interface. ECS Meeting Abstracts, 2018, , .	0.0	0

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55	Simple and Complex Polymer Electrolyte Fuel Cell Stack Models: A Comparison. ECS Meeting Abstracts, 2018, , .	0.0	0
56	Computational time and domain size analysis of porous media flows using the lattice Boltzmann method. Computers and Mathematics With Applications, 2017, 74, 26-34.	2.7	14
57	Influence of anisotropic gas diffusion layers on transport phenomena in a proton exchange membrane fuel cell. International Journal of Energy Research, 2017, 41, 2034-2050.	4.5	40
58	Wavy Surface Cathode Gas Flow Channel Effects on Transport Processes in a Proton Exchange Membrane Fuel Cell. Journal of Electrochemical Energy Conversion and Storage, 2017, 14, .	2.1	23
59	Modeling of a Gradient Porosity SOFC Anode using the Lattice Boltzmann Method. Energy Procedia, 2017, 105, 1332-1338.	1.8	8
60	Enhancement of heat transfer in a square channel by roughened surfaces in rib-elements and turbulent flow manipulation. International Journal of Numerical Methods for Heat and Fluid Flow, 2017, 27, 1571-1595.	2.8	10
61	Comparing through-plane diffusibility correlations in PEFC gas diffusion layers using the lattice Boltzmann method. International Journal of Hydrogen Energy, 2017, 42, 11689-11698.	7.1	32
62	Thermal stress analysis of a planar anode-supported solid oxide fuel cell: Effects of anode porosity. International Journal of Hydrogen Energy, 2017, 42, 20239-20248.	7.1	30
63	Pore-Scale Analysis of Diffusion Transport Parameters in Digitally Reconstructed SOFC Anodes with Gradient Porosity in the Main Flow Direction. ECS Transactions, 2017, 78, 2785-2796.	0.5	7
64	Co-fabrication of nickel-YSZ cermet nanofibers via an electrospinning technique. Materials Research Bulletin, 2017, 86, 38-43.	5.2	15
65	Predicting transport parameters in PEFC gas diffusion layers considering micro-architectural variations using the Lattice Boltzmann method. International Journal of Energy Research, 2017, 41, 565-578.	4.5	13
66	Fabrication of nickel-YSZ cermet nanofibers via electrospinning. Journal of Alloys and Compounds, 2017, 693, 1214-1219.	5.5	18
67	Applicability of the lattice Boltzmann method to determine the ohmic resistance in equivalent resistor connections. Journal of Physics: Conference Series, 2017, 936, 012019.	0.4	0
68	Pore-Scale Analysis of Diffusion Transport Parameters in Digitally Reconstructed SOFC Anodes with Gradient Porosity in the Main Flow Direction. ECS Meeting Abstracts, 2017, , .	0.0	0
69	Potential of Lattice Boltzmann Method to Determine the Ohmic Resistance in Porous Materials. Journal of Physics: Conference Series, 2016, 738, 012090.	0.4	1
70	Solid oxide fuel cell interconnect design optimization considering the thermal stresses. Science Bulletin, 2016, 61, 1333-1344.	9.0	50
71	Review on Dimensionless Numbers Relevant for Polymer Electrolyte Fuel Cells. ECS Transactions, 2016, 75, 547-552.	0.5	1
72	A review of cell-scale multiphase flow modeling, including water management, in polymer electrolyte fuel cells. Applied Energy, 2016, 180, 757-778.	10.1	155

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73	Modeling of an anode supported solid oxide fuel cell focusing on thermal stresses. International Journal of Hydrogen Energy, 2016, 41, 14927-14940.	7.1	80
74	Impact on Diffusion Parameters Computation in Gas Diffusion Layers, Considering the Land/Channel Region, Using the Lattice Boltzmann Method. ECS Transactions, 2016, 75, 521-530.	0.5	9
75	Modeling of mass and charge transport in a solid oxide fuel cell anode structure by a 3D lattice Boltzmann approach. Heat and Mass Transfer, 2016, 52, 1529-1540.	2.1	12
76	Impact on Diffusion Parameters Computation in Gas Diffusion Layers, Considering the Land/Channel Region, Using the Lattice Boltzmann Method. ECS Meeting Abstracts, 2016, , .	0.0	0
77	Review on Dimensionless Numbers Relevant for Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2016, , .	0.0	0
78	Compress effects on porosity, gas-phase tortuosity, and gas permeability in a simulated PEM gas diffusion layer. International Journal of Energy Research, 2015, 39, 1528-1536.	4.5	35
79	Analysis of Porosity and Tortuosity in a 2D Selected Region of Solid Oxide Fuel Cell Cathode Using the Lattice Boltzmann Method. ECS Transactions, 2015, 65, 59-73.	0.5	24
80	Modeling of Solid Oxide Fuel Cell with Anisotropic Conductivity. ECS Transactions, 2015, 68, 3003-3011.	0.5	1
81	Thermal properties on high fill factor electrical windings: Infiltrated vs non infiltrated. , 2014, , .		38
82	Comparison of humidified hydrogen and partly pre-reformed natural gas as fuel for solid oxide fuel cells applying computational fluid dynamics. International Journal of Heat and Mass Transfer, 2014, 77, 1008-1022.	4.8	37
83	SOFC Cell Design Optimization Using the Finite Element Method Based CFD Approach. Fuel Cells, 2014, 14, 177-188.	2.4	51
84	Highlights of Fuel Cell Modeling From a Lattice Boltzmann Method Point of View. , 2014, , .		2
85	Three dimensional modeling of an solid oxide fuel cell coupling charge transfer phenomena with transport processes and heat generation. Electrochimica Acta, 2013, 109, 881-893.	5.2	71
86	Three-Dimensional Design Optimization of an Anode-Supported SOFC Using FEM. ECS Transactions, 2013, 57, 2485-2494.	0.5	1
87	Grading the Amount of Electrochemical Active Sites along the Main Flow Direction of an SOFC. Journal of the Electrochemical Society, 2013, 160, F1-F12.	2.9	29
88	Three dimensional CFD modeling and experimental validation of an electrolyte supported solid oxide fuel cell fed with methane-free biogas. International Journal of Hydrogen Energy, 2013, 38, 10068-10080.	7.1	42
89	SOFC modeling considering hydrogen and carbon monoxide as electrochemical reactants. Journal of Power Sources, 2013, 232, 42-54.	7.8	113
90	Lattice Boltzmann Modeling of Advection-Diffusion Transport With Electrochemical Reactions in a Porous SOFC Anode Structure. , 2013, , .		2

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91	Perspectives on Lattice Boltzmann Modeling of Transport Processes With Electrochemical Reactions in SOFCs. , 2013, , .		0
92	3D Modeling of an Anode Supported SOFC Using FEM and LBM. , 2013, , .		1
93	SOFC Modeling at the Cell Scale Including Hydrogen and Carbon Monoxide as Electrochemically Active Fuels. , 2012, , .		0
94	Transport phenomena in solid oxide fuel cell electrodes focusing on heat transfer related to chemical reactions. Journal of Physics: Conference Series, 2012, 395, 012086.	0.4	0
95	New manufacturing methods for electric motors using different soft magnetic material combinations. , 2012, , .		2
96	SOFC modeling considering electrochemical reactions at the active three phase boundaries. International Journal of Heat and Mass Transfer, 2012, 55, 773-788.	4.8	160
97	The effect of heat transfer on the polarizations within an intermediate temperature solid oxide fuel cell. WIT Transactions on Engineering Sciences, 2012, , .	0.0	0
98	Simulation of alternative fuels for potential utilization in solid oxide fuel cells. International Journal of Energy Research, 2011, 35, 1107-1117.	4.5	18
99	Review of catalyst materials and catalytic steam reforming reactions in SOFC anodes. International Journal of Energy Research, 2011, 35, 1340-1350.	4.5	47
100	Modeling Validation and Simulation of an Anode Supported SOFC Including Mass and Heat Transport, Fluid Flow and Chemical Reactions. , 2011, , .		2
101	The Kinetics Effect in SOFCs on Heat and Mass Transfer Limitations: Interparticle, Interphase and Intraparticle Transport. , 2011, , .		0
102	Modeling Analysis of Different Renewable Fuels in an Anode Supported SOFC. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	32
103	CFD Modeling: Different Kinetic Approaches for Internal Reforming Reactions in an Anode-Supported SOFC. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	16
104	Analysis of Microscopic Anode Structure Effects on an Anode-Supported SOFC Including Knudsen Diffusion. ECS Transactions, 2011, 35, 1799-1809.	0.5	0
105	Modeling Analysis of Different Renewable Fuels in an Anode Supported SOFC. , 2010, , .		0
106	Review on modeling development for multiscale chemical reactions coupled transport phenomena in solid oxide fuel cells. Applied Energy, 2010, 87, 1461-1476.	10.1	251
107	Study on Catalytic Reactions in Solid Oxide Fuel Cells With Comparison to Gas Phase Reactions in Internal Combustion Engines. , 2010, , .		0
108	CFD Modeling Considering Different Kinetic Models for Internal Reforming Reactions in an Anode-Supported SOFC. , 2010, , .		1

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109	LTNE Approach and Simulation for Anode-Supported SOFCs. , 2009, , .		4
110	SOFC Modeling Considering Internal Reforming by a Global Kinetics Approach. ECS Transactions, 2009, 25, 1201-1210.	0.5	1
111	First principles calculations and experimental insight into methane steam reforming over transition metal catalysts. Journal of Catalysis, 2008, 259, 147-160.	6.2	559
112	Chemical reacting transport phenomena and multiscale models for SOFCs. WIT Transactions on Engineering Sciences, 2008, , .	0.0	2