

Gunnar Nurk

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2717004/publications.pdf>

Version: 2024-02-01

74
papers

578
citations

623734

14
h-index

713466

21
g-index

74
all docs

74
docs citations

74
times ranked

583
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemical properties of nanoporous carbon electrodes in various nonaqueous electrolytes. Journal of Solid State Electrochemistry, 2003, 7, 91-105.	2.5	67
2	Redox dynamics of sulphur with Ni/GDC anode during SOFC operation at mid- and low-range temperatures: An operando SÄK-edge XANES study. Journal of Power Sources, 2013, 240, 448-457.	7.8	39
3	Statistical method to optimize the medium temperature solid oxide fuel cell electrode materials. Journal of Electroanalytical Chemistry, 2009, 629, 94-101.	3.8	37
4	Electrochemical and gas phase parameters of cathodes for intermediate temperature solid oxide fuel cells. Electrochimica Acta, 2010, 55, 7669-7678.	5.2	25
5	Near ambient pressure X-ray photoelectron - and impedance spectroscopy study of NiO - Ce _{0.9} Gd _{0.1} O _{2-δ} anode reduction using a novel dual-chamber spectroelectrochemical cell. Journal of Power Sources, 2018, 378, 589-596.	7.8	20
6	Determination of diffusion coefficients of inside carbon nanopores using the single particle microelectrode technique. Journal of Electroanalytical Chemistry, 2006, 586, 247-259.	3.8	19
7	Influence of Microstructure on the Electrochemical Behavior of LSC Cathodes for Intermediate Temperature SOFC. Journal of the Electrochemical Society, 2013, 160, F1245-F1253.	2.9	18
8	Kinetic Response of La _{0.6} Sr _{0.4} Co _{3-δ} Lattice Parameters to Electric Potential Change in Porous Cathode at In Situ Solid Oxide Fuel Cell Conditions. Journal of the Electrochemical Society, 2015, 162, F354-F358.	2.9	18
9	Lanthanum doped strontium titanate - ceria anodes: deconvolution of impedance spectra and relationship with composition and microstructure. Journal of Power Sources, 2018, 385, 62-75.	7.8	18
10	Long-term mineral transformation of Ca-rich oil shale ash waste. Science of the Total Environment, 2019, 658, 1404-1415.	8.0	18
11	Optimization of the Cathode Composition for the Intermediate-Temperature SOFC. Journal of the Electrochemical Society, 2005, 152, A2306.	2.9	17
12	Electrochemical Characteristics and Gas Composition Generated by La _{0.8} Sr _{0.2} Cr _{0.5} Mn _{0.5} O _{3-δ} Cathode at Electrolysis and Co-Electrolysis Modes. Journal of the Electrochemical Society, 2016, 163, F3190-F3196.	2.9	16
13	Electrochemical characteristics of La _{0.6} Sr _{0.4} CoO _{3-δ} , Pr _{0.6} Sr _{0.4} CoO _{3-δ} and Gd _{0.6} Sr _{0.4} CoO _{3-δ} on Ce _{0.85} Sm _{0.15} O _{1.925} electrolyte. Journal of Solid State Electrochemistry, 2005, 9, 882-889.	2.5	15
14	Development of porous cathode powders for SOFC and influence of cathode structure on the oxygen electroreduction kinetics. Electrochemistry Communications, 2008, 10, 1455-1458.	4.7	15
15	Operando high-temperature near-ambient pressure X-ray photoelectron spectroscopy and impedance spectroscopy study of $N_{x}C_{y}O_{z}$ Cathode at Electrolysis and Co-Electrolysis Modes. Journal of the Electrochemical Society, 2016, 163, F3190-F3196.	7.1	15
16	Oxygen Stoichiometry in La _{0.6} Sr _{0.4} Co _{3-δ} and La _{0.6} Sr _{0.4} Co _{3-δ} Cathodes under Applied Potential as a Function of Temperature and Oxygen Partial Pressure, Measured by Electrochemical in Situ High-Temperature XRD Method. Journal of the Electrochemical Society, 2013, 160, F1022-F1026.	2.9	14
17	Simultaneous Operando Characterization of Crystallographic and Electrochemical Properties of Ni-Ce _{0.9} Gd _{0.1} O _{2-δ} Solid Oxide Fuel Cell Anode. Journal of the Electrochemical Society, 2018, 165, F1043-F1050.	2.9	14
18	Adsorption Kinetics of Normal-Heptanol on the Bismuth Single Crystal Planes. Russian Journal of Electrochemistry, 2002, 38, 8-19.	0.9	12

#	ARTICLE	IF	CITATIONS
19	A versatile salt evaporation reactor system for SOFC operando studies on anode contamination and degradation with impedance spectroscopy. <i>Journal of Power Sources</i> , 2011, 196, 3134-3140.	7.8	12
20	Influence of Graphite Pore Forming Agents on the Structural and Electrochemical Properties of Porous Ni-CGO Anode. <i>Journal of the Electrochemical Society</i> , 2012, 159, F849-F857.	2.9	12
21	Electrochemical characteristics of Ce _{0.8} Gd _{0.2} O _{1.9} La _{0.6} Sr _{0.4} CoO _{3-δ} / Ce _{0.8} Gd _{0.2} O _{1.9} half-cell. <i>Journal of Solid State Electrochemistry</i> , 2005, 9, 674-683.	2.5	11
22	Influence of Microstructural Parameters of LSC Cathodes on the Oxygen Reduction Reaction Parameters. <i>Journal of the Electrochemical Society</i> , 2012, 159, F743-F750.	2.9	10
23	Yttria stabilized zirconia microtubes for microfluidics under extreme conditions. <i>RSC Advances</i> , 2014, 4, 17413-17419.	3.6	10
24	Melt-electrospinning as a method to improve the dissolution and physical stability of a poorly water-soluble drug. <i>European Journal of Pharmaceutical Sciences</i> , 2018, 121, 260-268.	4.0	10
25	Influence of Carboxylate Anions on Phase Behavior of Choline Ionic Liquid Mixtures. <i>Molecules</i> , 2020, 25, 1691.	3.8	10
26	Electrochemical properties of diamond-like carbon electrodes prepared by the pulsed laser deposition method. <i>Journal of Solid State Electrochemistry</i> , 2003, 7, 421-434.	2.5	7
27	Influence of humidified synthetic air feeding conditions on the stoichiometry of (La _{1-x} Sr _x) _y CoO _{3-δ} and La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} cathodes under applied potential measured by electrochemical in situ high-temperature XRD method. <i>Journal of Solid State Electrochemistry</i> , 2017, 21, 361-369.	2.5	7
28	Dependence of Syngas Composition on Microstructure of La _{0.8} Sr _{0.2} Cr _{0.5} Mn _{0.5} O _{3-δ} Based Cathode for CO ₂ and H ₂ O Co-Electrolysis. <i>ECS Transactions</i> , 2017, 78, 3275-3281.	0.5	7
29	Study of Long-Term Stability of Ni-Zr _{0.92} Y _{0.08} O _{2-δ} Zr _{0.92} Y _{0.08} O _{2-δ} Ce _{0.9} Gd _{0.1} O _{2-δ} Pr _{0.6} Sr _{0.4} CoO _{3-δ} at SOFC and SOEC Mode. <i>Energies</i> , 2021, 14, 824.	3.1	7
30	Influence of Ni concentration on electrochemical and crystallographic properties of La _{0.25} Sr _{0.25} Ca _{0.4} Ti _{1-x} Ni _x O _{3-δ} solid oxide fuel cell anode. <i>Journal of Power Sources</i> , 2021, 494, 229739.	7.8	7
31	Influence of Mesoporosity of the Anode on the Characteristics of Mediumtemperature SOFC Single Cells. <i>ECS Transactions</i> , 2007, 7, 1609-1616.	0.5	6
32	Investigation of Microstructure of Sr-Doped Lanthanum Vanadium Oxide Anode Based on SDC Electrolyte. <i>ECS Transactions</i> , 2013, 57, 1185-1191.	0.5	6
33	Adsorption of uracil on bismuth single crystal planes. <i>Journal of Electroanalytical Chemistry</i> , 2005, 580, 128-134.	3.8	5
34	Comparative Study of BaY _{0.1} Zr _{0.9} O _{3-δ} Protective Layers Deposited to BaY _{0.1} Ce _{0.9} O _{3-δ} Membrane Using Ultrasonic Spray Pyrolysis and Magnetron Sputtering Methods. <i>Journal of the Electrochemical Society</i> , 2016, 163, F443-F447.	2.9	5
35	Influence of Cathode Porosity on the Characteristics of Medium-Temperature SOFC Single Cells. <i>ECS Transactions</i> , 2008, 12, 293-302.	0.5	4
36	Characterization of Terbium and Samarium Co-Doped Ceria Films Prepared Using Ultrasonic Spray Pyrolysis. <i>Journal of the Electrochemical Society</i> , 2015, 162, F812-F820.	2.9	4

#	ARTICLE	IF	CITATIONS
37	Influence of A- and B-Site Modifications of $(La_{1-x}Sr_x)_yCr_{0.5-z}Mn_{0.5-w}Ni_{z+w}O_{3-\delta}$ on Electrochemical Impedance Characteristics of Reversible Solid Oxide Cell. Journal of the Electrochemical Society, 2019, 166, F1148-F1156.	2.9	4
38	Influence of Cathode Porosity and Potential on Oxygen Reduction Kinetics at Intermediate Temperature SOFCs Cathodes. ECS Transactions, 2007, 7, 1071-1080.	0.5	3
39	Changes In LSC and LSCF Cathode Crystallographic Parameters Measured by Electrochemical In Situ High-Temperature XRD. ECS Transactions, 2013, 57, 1841-1849.	0.5	3
40	Investigation of Time Stability of Sr-Doped Lanthanum Vanadium Oxide Anode and Sr-Doped Lanthanum Cobalt Oxide Cathode Based on Samaria Doped Ceria Electrolyte Using Electrochemical and TOF-SIMS Methods. Journal of the Electrochemical Society, 2016, 163, F586-F592.	2.9	3
41	Influence of Cathode Thickness on the Oxygen Reduction Kinetics at the Intermediate Temperature SOFC Cathodes. ECS Transactions, 2011, 35, 2349-2355.	0.5	2
42	Optimization of Solid Oxide Fuel Cell Ni-CGO Anode Porosity. ECS Transactions, 2011, 35, 1771-1779.	0.5	2
43	Influence of LSC Cathode Microstructure on the Electrochemical Behavior at the Intermediate Temperature SOFC. ECS Transactions, 2013, 57, 2083-2092.	0.5	2
44	Mobility of Sr in Gadolinia Doped Ceria SOFC Chemical Barrier Layers Prepared Using Spray Pyrolysis, Pulsed Laser Deposition and Magnetron Sputtering Methods. ECS Transactions, 2015, 68, 1757-1763.	0.5	2
45	Changes in SOFC Cathode Crystallographic Structure Induced by Temperature, Potential and Oxygen Partial Pressure Studied Using in-Situ HT-XRD. ECS Transactions, 2015, 68, 671-679.	0.5	2
46	Influence of the Solid Oxide Electrolysis Component Characteristics on the Electrochemical Performance of SOE Cells. ECS Transactions, 2015, 68, 3323-3332.	0.5	2
47	Electrochemical- and Crystallographic <i>in Operando</i> Characterization of $La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.3}Ni_{0.2}O_{3-\delta}$ Anode Infiltrated into $Sc_{0.2}Ce_{0.01}Zr_{0.79}O_{2-\delta}$ Electrolyte Scaffold. ECS Transactions, 2019, 91, 1683-1692.	0.5	2
48	Study of Electrochemical and Crystallographic Changes During Initial Stabilization of $La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.3}Ni_{0.2}O_{3-\delta}$ Reversible Solid Oxide Cell Electrode. Fuel Cells, 2020, 20, 741-752.		
49	Influence of Carbon Dioxide and Humidity on the Stability of $(La_{0.6}Sr_{0.4})_{0.99}Co_{1-x}Ti_xO_{3-\delta}$ Cathode. Journal of the Electrochemical Society, 2022, 169, 014514.	2.9	2
50	Electrical Properties of Tb and Sm Co-Doped Ceria Electrolyte at Different Oxygen Partial Pressures. ECS Transactions, 2011, 35, 1219-1224.	0.5	1
51	Protective Yttrium Doped Barium Zirconate Layer on Yttrium Doped Barium Cerate Proton Conductive Membrane. ECS Transactions, 2013, 57, 1151-1157.	0.5	1
52	Characterization of Doped Ceria Films as SOFC Electrolyte Prepared by Using Ultrasonic Spray Pyrolysis Method. ECS Transactions, 2013, 57, 1159-1165.	0.5	1
53	Characterization of Terbium and Samarium Co-Doped Ceria Films as SOFC Electrolyte Prepared by Using Ultrasonic Spray Pyrolysis Method. ECS Transactions, 2015, 68, 359-367.	0.5	1
54	Development of Medium-Temperature Solid Oxide Fuel Cells and CO ₂ and H ₂ O Co-Electrolysis Cells in Estonia. ECS Transactions, 2015, 68, 3407-3415.	0.5	1

#	ARTICLE	IF	CITATIONS
55	Changes in SOFC Cathode Crystallographic Structure Induced by Oxygen Deficiency in Cathode Room. ECS Transactions, 2017, 78, 897-903.	0.5	1
56	In Operando Electrochemical High-Temperature X-Ray Diffraction Study of Ni-Ce _{0.9} Gd _{0.1} O _{2-δ} Redox Properties. ECS Transactions, 2017, 78, 1139-1148.	0.5	1
57	Influence of Humidity and Carbon Dioxide on the (La _{0.6} Sr _{0.4}) _{0.99} Co _{1-x} MxO _{3-δ} (M = Nb, Ti) Oxygen Electrode Characteristics. ECS Transactions, 2019, 91, 1453-1460.	0.5	1
58	Operando NAP-HT-XPS and Impedance Spectroscopy Study of Pulsed Laser Deposited Ni-Ce _{0.9} Gd _{0.1} O _{2-δ} Solid Oxide Fuel Cell Electrode. ECS Transactions, 2019, 91, 555-561.	0.5	1
59	Electrical Properties of Novel La _{0.2} Sr _{0.7-x} CaxTi _{0.95} Fe _{0.05} O _{3-δ} Based Fuel Electrode for Solid Oxide Cell. ECS Transactions, 2021, 103, 1971-1979.	0.5	1
60	Influence of Electrode Porosity and Potential of the Oxygen Reduction Kinetics on the Intermediate Temperature SOFCs Cathodes. ECS Transactions, 2007, 5, 423-434.	0.5	0
61	Medium Temperature Solid Oxide Fuel Cells Based on the Micro-Meso-Macro-Porous Cathodes and Anodes. ECS Transactions, 2009, 25, 325-333.	0.5	0
62	Influence of Some Inorganic Impurities on the Electrochemical Properties and Microstructure of Ni-CGO Anode in Artificial Woodgas Atmosphere. ECS Transactions, 2009, 25, 2117-2124.	0.5	0
63	Medium Temperature Solid Oxide Fuel Cells Based on Supporting Porous Anode and Bilayered Electrolyte. ECS Transactions, 2011, 35, 333-342.	0.5	0
64	Development of Medium-Temperature Solid Oxide Fuel Cell Materials and Single Cells in Estonia. ECS Transactions, 2013, 57, 521-527.	0.5	0
65	Comparative Study of BaY _{0.1} Ce _{0.9} O _{3-δ} Membrane with BaY _{0.1} Zr _{0.9} O _{3-δ} Protective Layers Synthesized with Spray Pyrolysis and Magnetron Sputtering Methods. ECS Transactions, 2015, 68, 473-480.	0.5	0
66	Investigation of Time Stability of Sr-Doped Lanthanum Vanadium Oxide Anode and Sr-Doped Lanthanum Cobalt Oxide Cathode Based on SDC Electrolyte Using SIMS. ECS Transactions, 2015, 68, 2535-2543.	0.5	0
67	Long Term Tests of Ni-YSZ YSZ GDC Pr _{0.6} Sr _{0.4} CoO _{3-δ} in SOFC and SOEC Regimes. ECS Transactions, 2017, 78, 3339-3348.	0.5	0
68	Development of Ceramic Materials and Application of Novel Physical Analysis Methods to Enhance Solid Oxide Fuel Cells and Solid Oxide Electrolysis Cells. ECS Transactions, 2017, 78, 3229-3236.	0.5	0
69	Influence of A-Site Deficiency, Porous Electrolyte Scaffold and Loading of MIEC Material on the Performance of La _{0.8} Sr _{0.2} Cr _{0.5} Mn _{0.5} O _{3-δ} Based R-SOC Fuel Electrode. ECS Transactions, 2019, 91, 2369-2377.	0.5	0
70	Long-Term Degradation and Poisoning Effects of Ni-YSZ YSZ GDC PSC in Electrolysis Mode. ECS Transactions, 2019, 91, 2727-2736.	0.5	0
71	Comparative study of the crystallographic expansion of GSC and LSC porous electrodes. Fuel Cells, 2021, 21, 290.	2.4	0
72	Influence of Sr ²⁺ Concentration and A-Site Deficiency on Surface Stability of (La _{1-y} Sr _y) _x Cr _{0.5} Mn _{0.45} Ni _{0.05} O _{3-δ} . ECS Transactions, 2021, 103, 1907-1915.	0.5	0

#	ARTICLE	IF	CITATIONS
73	Influence of Active Layer Thickness of Reversible Solid Oxide Cells on the Electrochemical Performance of Water Electrolysis. ECS Transactions, 2021, 103, 511-518.	0.5	0
74	Influence of the Ti Content on the Electrochemical Performance and Surface Properties of $(\text{La}_{0.6}\text{Sr}_{0.4})_{0.99}\text{Co}_{1-x}\text{Ti}_x\text{O}_{3-\delta}$ Oxygen Electrode. ECS Transactions, 2021, 103, 1433-1444.	0.5	0