

Gunnar Nurk

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Influence of Carbon Dioxide and Humidity on the Stability of $(\text{La}_{0.6}\text{Sr}_{0.4})_{0.99}\text{Co}_{1-x}\text{Ti}_x\text{O}_{3-\delta}$ Cathode. <i>Journal of the Electrochemical Society</i> , 2022, 169, 014514.	2.9	2
2	Study of Long-Term Stability of $\text{Ni-ZrO}_2\text{Y}_2\text{O}_3\text{CeO}_2\text{GdO}_3\text{Pr}_2\text{O}_3\text{CoO}_3$ at SOFC and SOEC Mode. <i>Energies</i> , 2021, 14, 824.	3.1	7
3	Influence of Ni concentration on electrochemical and crystallographic properties of $\text{La}_{0.25}\text{Sr}_{0.25}\text{Ca}_{0.4}\text{Ti}_{1-x}\text{Ni}_x\text{O}_3$ solid oxide fuel cell anode. <i>Journal of Power Sources</i> , 2021, 494, 229739.	7.8	7
4	Comparative study of the crystallographic expansion of GSC and LSC porous electrodes. <i>Fuel Cells</i> , 2021, 21, 290.	2.4	0
5	Influence of Sr^{2+} Concentration and A-Site Deficiency on Surface Stability of $(\text{La}_{1-y}\text{Sr}_y)\text{Cr}_{0.5}\text{Mn}_{0.45}\text{Ni}_{0.05}\text{O}_3$. <i>ECS Transactions</i> , 2021, 103, 1907-1915.	0.5	0
6	Influence of Active Layer Thickness of Reversible Solid Oxide Cells on the Electrochemical Performance of Water Electrolysis. <i>ECS Transactions</i> , 2021, 103, 511-518.	0.5	0
7	Electrical Properties of Novel $\text{La}_{0.2}\text{Sr}_{0.7-x}\text{Ca}_x\text{Ti}_{0.95}\text{Fe}_{0.05}\text{O}_3$ Based Fuel Electrode for Solid Oxide Cell. <i>ECS Transactions</i> , 2021, 103, 1971-1979.	0.5	1
8	Influence of the Ti Content on the Electrochemical Performance and Surface Properties of $(\text{La}_{0.6}\text{Sr}_{0.4})_{0.99}\text{Co}_{1-x}\text{Ti}_x\text{O}_3$ Oxygen Electrode. <i>ECS Transactions</i> , 2021, 103, 1433-1444.	0.5	0
9	Operando high-temperature near-ambient pressure X-ray photoelectron spectroscopy and impedance spectroscopy study of $(\text{La}_{0.75}\text{Sr}_{0.25}\text{Cr}_{0.5}\text{Mn}_{0.3}\text{Ni}_{0.2}\text{O}_{3-\delta})_{0.9}$ Reversible Solid Oxide Cell Electrode. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 25286-25298.	7.1	15
10	Study of Electrochemical and Crystallographic Changes During Initial Stabilization of $(\text{La}_{0.75}\text{Sr}_{0.25}\text{Cr}_{0.5}\text{Mn}_{0.3}\text{Ni}_{0.2}\text{O}_{3-\delta})_{0.9}$ Reversible Solid Oxide Cell Electrode. <i>Fuel Cells</i> , 2020, 20, 741-752.	2.9	4
11	Influence of Carboxylate Anions on Phase Behavior of Choline Ionic Liquid Mixtures. <i>Molecules</i> , 2020, 25, 1691.	3.8	10
12	Influence of A- and B-Site Modifications of $(\text{La}_{1-x}\text{Sr}_x)_y\text{Cr}_{0.5-z}\text{Mn}_{0.5-w}\text{Ni}_{z+w}\text{O}_{3-\delta}$ on Electrochemical Impedance Characteristics of Reversible Solid Oxide Cell. <i>Journal of the Electrochemical Society</i> , 2019, 166, F1148-F1156.	2.9	4
13	Influence of Humidity and Carbon Dioxide on the $(\text{La}_{0.6}\text{Sr}_{0.4})_{0.99}\text{Co}_{1-x}\text{M}_x\text{O}_3$ (M = Nb, Ti) Oxygen Electrode Characteristics. <i>ECS Transactions</i> , 2019, 91, 1453-1460.	0.5	1
14	Operando NAP-HT-XPS and Impedance Spectroscopy Study of Pulsed Laser Deposited $\text{Ni-CeO}_2\text{GdO}_3$ Solid Oxide Fuel Cell Electrode. <i>ECS Transactions</i> , 2019, 91, 555-561.	0.5	1
15	Influence of A-Site Deficiency, Porous Electrolyte Scaffold and Loading of MIEC Material on the Performance of $\text{La}_{0.8}\text{Sr}_{0.2}\text{Cr}_{0.5}\text{Mn}_{0.5}\text{O}_3$ Based R-SOC Fuel Electrode. <i>ECS Transactions</i> , 2019, 91, 2369-2377.	0.5	0
16	Long-Term Degradation and Poisoning Effects of $\text{Ni-YSZ} \text{YSZ} \text{GDC} \text{PSC}$ in Electrolysis Mode. <i>ECS Transactions</i> , 2019, 91, 2727-2736.	0.5	0
17	Electrochemical- and Crystallographic Operando Characterization of $(\text{La}_{0.75}\text{Sr}_{0.25}\text{Cr}_{0.5}\text{Mn}_{0.3}\text{Ni}_{0.2}\text{O}_{3-\delta})_{0.9}$ Anode Infiltrated into $\text{Sc}_{0.2}\text{Ce}_{0.01}\text{Zr}_{0.79}\text{O}_{2-\delta}$ Electrolyte Scaffold. <i>ECS Transactions</i> , 2019, 91, 1683-1692.	0.5	2
18	Long-term mineral transformation of Ca-rich oil shale ash waste. <i>Science of the Total Environment</i> , 2019, 658, 1404-1415.	8.0	18

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19	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
20	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
21	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
22	Melt-electrospinning as a method to improve the dissolution and physical stability of a poorly water-soluble drug. European Journal of Pharmaceutical Sciences, 2018, 121, 260-268.	4.0	10
23	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. Journal of Solid State Electrochemistry, 2017, 21, 361-369.	2.5	7
24	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
25	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
26	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. ECS Transactions, 2017, 78, 3275-3281.	0.5	7
27	Changes in SOFC Cathode Crystallographic Structure Induced by Oxygen Deficiency in Cathode Room. ECS Transactions, 2017, 78, 897-903.	0.5	1
28	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
29	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
30	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
31	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. Journal of the Electrochemical Society, 2016, 163, F443-F447.	2.9	5
32	Kinetic Response of La _{0.6} Sr _{0.4} CoO _{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
33	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
34	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
35	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
36	Characterization of Terbium and Samarium Co-Doped Ceria Films Prepared Using Ultrasonic Spray Pyrolysis. Journal of the Electrochemical Society, 2015, 162, F812-F820.	2.9	4

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37	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
38	Influence of the Solid Oxide Electrolysis Component Characteristics on the Electrochemical Performance of SOE Cells. ECS Transactions, 2015, 68, 3323-3332.	0.5	2
39	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
40	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
41	Yttria stabilized zirconia microtubes for microfluidics under extreme conditions. RSC Advances, 2014, 4, 17413-17419.	3.6	10
42	Development of Medium-Temperature Solid Oxide Fuel Cell Materials and Single Cells in Estonia. ECS Transactions, 2013, 57, 521-527.	0.5	0
43	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
44	Influence of LSC Cathode Microstructure on the Electrochemical Behavior at the Intermediate Temperature SOFC. ECS Transactions, 2013, 57, 2083-2092.	0.5	2
45	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
46	Redox dynamics of sulphur with Ni/GDC anode during SOFC operation at mid- and low-range temperatures: An operando SÅK-edge XANES study. Journal of Power Sources, 2013, 240, 448-457.	7.8	39
47	Protective Yttrium Doped Barium Zirconate Layer on Yttrium Doped Barium Cerate Proton Conductive Membrane. ECS Transactions, 2013, 57, 1151-1157.	0.5	1
48	Characterization of Doped Ceria Films as SOFC Electrolyte Prepared by Using Ultrasonic Spray Pyrolysis Method. ECS Transactions, 2013, 57, 1159-1165.	0.5	1
49	Investigation of Microstructure of Sr-Doped Lanthanum Vanadium Oxide Anode Based on SDC Electrolyte. ECS Transactions, 2013, 57, 1185-1191.	0.5	6
50	Oxygen Stoichiometry in La _{0.6} Sr _{0.4} CoO ₃ and La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O ₃ 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
51	Influence of Graphite Pore Forming Agents on the Structural and Electrochemical Properties of Porous Ni-CGO Anode. Journal of the Electrochemical Society, 2012, 159, F849-F857.	2.9	12
52	Influence of Microstructural Parameters of LSC Cathodes on the Oxygen Reduction Reaction Parameters. Journal of the Electrochemical Society, 2012, 159, F743-F750.	2.9	10
53	Influence of Cathode Thickness on the Oxygen Reduction Kinetics at the Intermediate Temperature SOFC Cathodes. ECS Transactions, 2011, 35, 2349-2355.	0.5	2
54	A versatile salt evaporation reactor system for SOFC operando studies on anode contamination and degradation with impedance spectroscopy. Journal of Power Sources, 2011, 196, 3134-3140.	7.8	12

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55	Medium Temperature Solid Oxide Fuel Cells Based on Supporting Porous Anode and Bilayered Electrolyte. ECS Transactions, 2011, 35, 333-342.	0.5	0
56	Optimization of Solid Oxide Fuel Cell Ni-CGO Anode Porosity. ECS Transactions, 2011, 35, 1771-1779.	0.5	2
57	Electrical Properties of Tb and Sm Co-Doped Ceria Electrolyte at Different Oxygen Partial Pressures. ECS Transactions, 2011, 35, 1219-1224.	0.5	1
58	Electrochemical and gas phase parameters of cathodes for intermediate temperature solid oxide fuel cells. Electrochimica Acta, 2010, 55, 7669-7678.	5.2	25
59	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
60	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
61	Statistical method to optimize the medium temperature solid oxide fuel cell electrode materials. Journal of Electroanalytical Chemistry, 2009, 629, 94-101.	3.8	37
62	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
63	Influence of Cathode Porosity on the Characteristics of Medium-Temperature SOFC Single Cells. ECS Transactions, 2008, 12, 293-302.	0.5	4
64	Influence of Cathode Porosity and Potential on Oxygen Reduction Kinetics at Intermediate Temperature SOFCs Cathodes. ECS Transactions, 2007, 7, 1071-1080.	0.5	3
65	Influence of Mesoporosity of the Anode on the Characteristics of Mediumtemperature SOFC Single Cells. ECS Transactions, 2007, 7, 1609-1616.	0.5	6
66	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
67	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
68	Adsorption of uracil on bismuth single crystal planes. Journal of Electroanalytical Chemistry, 2005, 580, 128-134.	3.8	5
69	Electrochemical characteristics of $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{1.9} \text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta} + \text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{1.9}$ half-cell. Journal of Solid State Electrochemistry, 2005, 9, 674-683.	2.5	11
70	Electrochemical characteristics of $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$, $\text{Pr}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$ and $\text{Gd}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$ on $\text{Ce}_{0.85}\text{Sm}_{0.15}\text{O}_{1.925}$ electrolyte. Journal of Solid State Electrochemistry, 2005, 9, 882-889.	2.5	15
71	Optimization of the Cathode Composition for the Intermediate-Temperature SOFC. Journal of the Electrochemical Society, 2005, 152, A2306.	2.9	17
72	Electrochemical properties of nanoporous carbon electrodes in various nonaqueous electrolytes. Journal of Solid State Electrochemistry, 2003, 7, 91-105.	2.5	67

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73	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
74	Adsorption Kinetics of Normal-Heptanol on the Bismuth Single Crystal Planes. <i>Russian Journal of Electrochemistry</i> , 2002, 38, 8-19.	0.9	12