Isabella Nicotera

List of Publications by Year
in descending order

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101 papers	2,924 citations	136740 32 h-index	205818 48 g-index
101 all docs	101 docs citations	101 times ranked	3283 citing authors

#	Article	IF	Citations
1	Safe gel polymer electrolytes for high voltage Li-batteries. Electrochimica Acta, 2022, 401, 139470.	2.6	17
2	Hexagonal Mesoporous Silica for carbon capture: Unrevealing CO2 microscopic dynamics by Nuclear Magnetic Resonance. Journal of CO2 Utilization, 2022, 55, 101809.	3.3	13
3	Effect of LDH platelets on the transport properties and carbonation of anion exchange membranes. Electrochimica Acta, 2022, 403, 139713.	2.6	16
4	Sulfonated Polyether Ether Ketone and Organosilica Layered Nanofiller for Sustainable Proton Exchange Membranes Fuel Cells (PEMFCs). Applied Sciences (Switzerland), 2022, 12, 963.	1.3	5
5	Sodiated Nafion membranes for sodium metal aprotic batteries. Electrochimica Acta, 2022, 410, 139936.	2.6	14
6	Non-Monotonic Temperature Dependence of Hydroxide Ion Diffusion in Anion Exchange Membranes. Chemistry of Materials, 2022, 34, 2133-2145.	3.2	25
7	Elucidating the Water and Methanol Dynamics in Sulfonated Polyether Ether Ketone Nanocomposite Membranes Bearing Layered Double Hydroxides. Membranes, 2022, 12, 419.	1.4	2
8	The impact of carbonation on hydroxide diffusion in nano-confined anion exchange membranes. Journal of Materials Chemistry A, 2022, 10, 11137-11149.	5.2	6
9	Quaternized polyepichlorohydrin-based membrane as high-selective CO2 sorbent for cost-effective carbon capture. Journal of CO2 Utilization, 2022, 63, 102135.	3.3	7
10	How the Morphology of Nafion-Based Membranes Affects Proton Transport. Polymers, 2021, 13, 359.	2.0	18
11	Autonomous Self-Healing Strategy for Stable Sodium-Ion Battery: A Case Study of Black Phosphorus Anodes. ACS Applied Materials & Interfaces, 2021, 13, 13170-13182.	4.0	31
12	Exploring the Structureâ€“Performance Relationship of Sulfonated Polysulfone Proton Exchange Membrane by a Combined Computational and Experimental Approach. Polymers, 2021, 13, 959.	2.0	18
13	Electrochemical Performance and Alkaline Stability of Cross-linked Quaternized Polyepichlorohydrin/PvDF Blends for Anion-Exchange Membrane Fuel Cells. Journal of Physical Chemistry C, 2021, 125, 5494-5504.	1.5	14
14	Anisotropic behavior of mechanically extruded sulfonated polysulfone: Implications for proton exchange membrane fuel cell applications. Solid State Ionics, 2021, 362, 115581.	1.3	8
15	New Insights into Properties of Methanol Transport in Sulfonated Polysulfone Composite Membranes for Direct Methanol Fuel Cells. Polymers, 2021, 13, 1386.	2.0	6
16	Polysulfone and organo-modified graphene oxide for new hybrid proton exchange membranes: A green alternative for high-efficiency PEMFCs. Electrochimica Acta, 2021, 380, 138214.	2.6	28
17	Simplified Allâ€Solidâ€State WO₃ Based Electrochromic Devices on Single Substrate: Toward Large Area, Low Voltage, High Contrast, and Fast Switching Dynamics. Advanced Materials Interfaces, 2020, 7, 1901663.	1.9	33
18	Titanium Dioxide Grafted on Graphene Oxide: Hybrid Nanofiller for Effective and Low-Cost Proton Exchange Membranes. Nanomaterials, 2020, 10, 1572.	1.9	14

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19	Microscopic and macroscopic investigation on the gas diffusion in poly(ether-block-amide) membranes doped with polysorbate nonionic surfactants. Polymer, 2020, 209, 122949.	1.8	8
20	Transport Properties and Mechanical Features of Sulfonated Polyether Ether Ketone/Organosilica Layered Materials Nanocomposite Membranes for Fuel Cell Applications. Membranes, 2020, 10, 87.	1.4	16
21	Highly-performing and low-cost nanostructured membranes based on Polysulfone and layered doubled hydroxide for high-temperature proton exchange membrane fuel cells. Journal of Power Sources, 2020, 471, 228440.	4.0	37
22	Sulfonated polyethersulfone/polyetheretherketone blend as high performing and cost-effective electrolyte membrane for direct methanol fuel cells. Renewable Energy, 2020, 159, 336-345.	4.3	38
23	Advances in hybrid composite membranes engineering for high-performance direct methanol fuel cells by alignment of 2D nanostructures and a dual-layer approach. Journal of Membrane Science, 2020, 599, 117858.	4.1	33
24	Nafion-based cation-exchange membranes for direct methanol fuel cells. , 2020, , 13-36.		2
25	Barrier properties of sulfonated polysulfone/layered double hydroxides nanocomposite membrane for direct methanol fuel cell operating at high methanol concentrations. International Journal of Hydrogen Energy, 2020, 45, 20647-20658.	3.8	35
26	A Novel Li⁺-Nafion-Sulfonated Graphene Oxide Membrane as Single Lithium-Ion Conducting Polymer Electrolyte for Lithium Batteries. Journal of Physical Chemistry C, 2019, 123, 27406-27416.	1.5	36
27	Understanding the Effect of UV-Induced Cross-Linking on the Physicochemical Properties of Highly Performing PEO/LiTFSI-Based Polymer Electrolytes. Langmuir, 2019, 35, 8210-8219.	1.6	92
28	Solution Casting Blending: An Effective Way for Tailoring Gas Transport and Mechanical Properties of Poly(vinyl butyral) and Pebax2533. Journal of Physical Chemistry C, 2019, 123, 11264-11272.	1.5	10
29	Enhanced safety and galvanostatic performance of high voltage lithium batteries by using ionic liquids. Electrochimica Acta, 2019, 316, 1-7.	2.6	32
30	Toward optimization of a robust lowâ€cost sulfonatedâ€polyethersulfone containing layered double hydroxide for PEM fuel cells. Journal of Applied Polymer Science, 2019, 136, 47884.	1.3	22
31	Graphene oxide and sulfonated-derivative: Proton transport properties and electrochemical behavior of Nafion-based nanocomposites. Electrochimica Acta, 2019, 297, 240-249.	2.6	37
32	Advanced processing and characterization of Nafion electrolyte films for solid-state electrochromic devices fabricated at room temperature on single substrate. Solid State Ionics, 2018, 317, 46-52.	1.3	28
33	Highly stable surfactant-crumb rubber-modified bitumen: NMR and rheological investigation. Road Materials and Pavement Design, 2018, 19, 1192-1202.	2.0	23
34	Gi Protein Modulation of the Potassium Channel TASK-2 Mediates Vesicle Osmotic Swelling to Facilitate the Fusion of Aquaporin-2 Water Channel Containing Vesicles. Cells, 2018, 7, 276.	1.8	3
35	Composite Gel Polymer Electrolytes Based on Organo-Modified Nanoclays: Investigation on Lithium-Ion Transport and Mechanical Properties. Membranes, 2018, 8, 69.	1.4	32
36	Effect of solution concentration and composition on the electrochemical properties of ion exchange membranes for energy conversion. Journal of Power Sources, 2017, 340, 282-293.	4.0	62

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37	NMR investigation on nanocomposite membranes based on organosilica layered materials bearing different functional groups for PEMFCs. International Journal of Hydrogen Energy, 2017, 42, 27940-27949.	3.8	26
38	Assessment of commercial poly(Îµ-caprolactone) as a renewable candidate for carbon capture and utilization. Journal of CO2 Utilization, 2017, 19, 185-193.	3.3	20
39	Reduced methanol crossover and enhanced proton transport in nanocomposite membranes based on clayâ^'CNTs hybrid materials for direct methanol fuel cells. Ionics, 2017, 23, 2113-2123.	1.2	28
40	Influence of membrane-type and flow field design on methanol crossover on a single-cell DMFC: An experimental and multi-physics modeling study. International Journal of Hydrogen Energy, 2017, 42, 27995-28010.	3.8	31
41	A facile approach to fabricating organosilica layered material with sulfonic groups as an efficient filler for polymer electrolyte nanocomposites. New Journal of Chemistry, 2017, 41, 9489-9496.	1.4	22
42	Sulfated titania as additive in Nafion membranes for water electrolysis applications. International Journal of Hydrogen Energy, 2017, 42, 27851-27858.	3.8	19
43	Toxicity Evaluation of Graphene Oxide and Titania Loaded Nafion Membranes in Zebrafish. Frontiers in Physiology, 2017, 8, 1039.	1.3	45
44	Bis(2-ethylhexyl)phosphoric acid/bis(2-ethylhexyl)amine mixtures as solvent media for lithium-ions: A dynamical study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 489, 447-453.	2.3	5
45	Nano-demixing as a novel strategy for magnetic field responsive systems: the case of dibutyl phosphate/bis(2-ethylhexyl)amine systems. RSC Advances, 2016, 6, 26696-26708.	1.7	16
46	Enhancement of proton mobility and mitigation of methanol crossover in sPEEK fuel cells by an organically modified titania nanofiller. Journal of Solid State Electrochemistry, 2016, 20, 1585-1598.	1.2	30
47	NafionÂ® nanocomposite membranes with enhanced properties at high temperature and low humidity environments. International Journal of Hydrogen Energy, 2016, 41, 22406-22414.	3.8	51
48	Clayâ€“Carbon Nanotubes Hybrid Materials for Nanocomposite Membranes: Advantages of Branched Structure for Proton Transport under Low Humidity Conditions in PEMFCs. Journal of Physical Chemistry C, 2016, 120, 2574-2584.	1.5	51
49	Cationic and anionic azo-dye removal from water by sulfonated graphene oxide nanosheets in Nafion membranes. New Journal of Chemistry, 2016, 40, 3654-3663.	1.4	49
50	An NMR study on the molecular dynamic and exchange effects in composite Nafion/sulfated titania membranes for PEMFCs. International Journal of Hydrogen Energy, 2015, 40, 14651-14660.	3.8	25
51	Composite polymer electrolyte membranes based on Mgâ€“Al layered double hydroxide (LDH) platelets for H2/air-fed fuel cells. Solid State Ionics, 2015, 276, 40-46.	1.3	41
52	Investigation of layered double hydroxide (LDH) Nafion-based nanocomposite membranes for high temperature PEFCs. Energy Conversion and Management, 2015, 96, 39-46.	4.4	32
53	Ion Dynamics and Mechanical Properties of Sulfonated Polybenzimidazole Membranes for High-Temperature Proton Exchange Membrane Fuel Cells. Journal of Physical Chemistry C, 2015, 119, 9745-9753.	1.5	28
54	Methanol and proton transport in layered double hydroxide and smectite clay-based composites: influence on the electrochemical behavior of direct methanol fuel cells at intermediate temperatures. Journal of Solid State Electrochemistry, 2015, 19, 2053-2061.	1.2	26

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55	Graphene oxide and titania hybrid Nafion membranes for efficient removal of methyl orange dye from water. Carbon, 2015, 82, 489-499.	5.4	86
56	Photocatalytic properties of Nafion membranes containing graphene oxide/titania nanocomposites. , 2014, , .		0
57	Probing membrane and interface properties in concentrated electrolyte solutions. Journal of Membrane Science, 2014, 459, 177-189.	4.1	78
58	Sulfonated Graphene Oxide Platelets in Nafion Nanocomposite Membrane: Advantages for Application in Direct Methanol Fuel Cells. Journal of Physical Chemistry C, 2014, 118, 24357-24368.	1.5	85
59	Decoupling of Dynamic Processes in Surfactant-Based Liquid Mixtures: The Case of Lithium-Containing Bis(2-ethylhexyl)phosphoric Acid/Bis(2-ethylhexyl)amine Systems. Langmuir, 2014, 30, 8336-8341.	1.6	9
60	Dynamical Properties of Self-Assembled Surfactant-Based Mixtures: Triggering of One-Dimensional Anomalous Diffusion in Bis(2-ethylhexyl)phosphoric Acid/n-Octylamine Systems. Langmuir, 2013, 29, 14848-14854.	1.6	36
61	NMR and Electrochemical Investigation of the Transport Properties of Methanol and Water in Nafion and Clay-Nanocomposites Membranes for DMFCs. Membranes, 2012, 2, 325-345.	1.4	25
62	Grapheneâ€Based Nafion Nanocomposite Membranes: Enhanced Proton Transport and Water Retention by Novel Organoâ€functionalized Graphene Oxide Nanosheets. Small, 2012, 8, 3338-3349.	5.2	131
63	Evaluation of smectite clays as nanofillers for the synthesis of nanocomposite polymer electrolytes for fuel cell applications. International Journal of Hydrogen Energy, 2012, 37, 6236-6245.	3.8	47
64	Effective Improvement of Water-Retention in Nanocomposite Membranes Using Novel Organo-Modified Clays as Fillers for High Temperature PEMFCs. Journal of Physical Chemistry B, 2011, 115, 9087-9097.	1.2	35
65	Effect of shear on vesicle and lamellar phases of DDAB/lecithin ternary systems. Journal of Colloid and Interface Science, 2011, 358, 506-512.	5.0	5
66	Solution microstructures of the micellar phase of Pluronic L64/SDS/water system. Journal of Colloid and Interface Science, 2010, 342, 348-353.	5.0	13
67	Evidence of Formation of Ammonium Perfluorononanoate/2H2O Multilamellar Vesicles: Morphological Analysis by Rheology and Rheo-2H NMR Experiments. Langmuir, 2010, 26, 19060-19065.	1.6	21
68	Electrochemical behaviour of propane-fed solid oxide fuel cells based on low Ni content anode catalysts. Electrochimica Acta, 2009, 54, 5280-5285.	2.6	23
69	Rheological investigation of thermal transitions in vesicular dispersion. Journal of Colloid and Interface Science, 2009, 338, 550-557.	5.0	17
70	Electrochemical investigation of a propane-fed solid oxide fuel cell based on a composite Niâ€“perovskite anode catalyst. Applied Catalysis B: Environmental, 2009, 89, 49-57.	10.8	38
71	NMR Investigation of the Dynamics of Confined Water in Nafion-Based Electrolyte Membranes at Subfreezing Temperatures. Journal of Physical Chemistry B, 2009, 113, 13935-13941.	1.2	44
72	NMR investigation of water and methanol mobility in nanocomposite fuel cell membranes. Ionics, 2008, 14, 243-253.	1.2	27

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73	Swollen and collapsed lyotropic lamellar rheology. Journal of Colloid and Interface Science, 2008, 321, 459-467.	5.0	37
74	Unravelling micellar structure and dynamics in an unusually extensive DDAB/bile salt catanionic solution by rheology and NMR-diffusometry. Journal of Colloid and Interface Science, 2008, 324, 192-198.	5.0	18
75	Aqueous self-assembly and physicochemical properties of 1,2-dilauroyl-rac-glycero-3-(NÎ±-acetyl-l-arginine). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 327, 111-121.	2.3	2
76	N,Nâ€™-Hexadecanoyl l-2-diaminomethyl-18-crown-6 surfactant: Synthesis and aggregation features in aqueous solution. Colloids and Surfaces B: Biointerfaces, 2008, 61, 30-38.	2.5	13
77	A new physicochemical characterization of sodium taurodeoxycholate/water system. Physical Chemistry Chemical Physics, 2008, 10, 6880.	1.3	11
78	AQUEOUS MICROSTRUCTURES OF PLURONIC L64â•SDS SYSTEM: NMR SELF-DIFFUSION AND FLOW BEHAVIOUR. AIP Conference Proceedings, 2008, , .	0.3	0
79	Solid-State NMR Characterization of Electrolyte Breakdown Products in Nonaqueous Asymmetric Hybrid Supercapacitors. Electrochemical and Solid-State Letters, 2007, 10, A5.	2.2	7
80	NMR Characterization of Composite Polymer Membranes for Low-Humidity PEM Fuel Cells. Journal of the Electrochemical Society, 2007, 154, B466.	1.3	40
81	Spectromechanical Properties of Polymeric Gel Electrolytes and Blends. Macromolecular Symposia, 2007, 247, 282-294.	0.4	4
82	Shear rheology and phase behaviour of sodium oleate/water mixtures. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 297, 95-104.	2.3	25
83	MRI Experiments as a Tool to Study Asymptotic-Shear Flow Behaviour of a Worm-Like Reverse Micellar Phase. Applied Rheology, 2006, 16, 190-197.	3.5	7
84	An NMR spectroscopic study of water and methanol transport properties in DMFC composite membranes: Influence on the electrochemical behaviour. Journal of Power Sources, 2006, 163, 52-55.	4.0	34
85	Investigation of ionic conduction and mechanical properties of PMMAâ€“PVdF blend-based polymer electrolytesâ˜†. Solid State Ionics, 2006, 177, 581-588.	1.3	97
86	An NMR and SAXS investigation of DMFC composite recast Nafion membranes containing ceramic fillers. Journal of Membrane Science, 2006, 270, 221-227.	4.1	58
87	Rheological properties and impedance spectroscopy of PMMA-PVdF blend and PMMA gel polymer electrolytes for advanced lithium batteries. Ionics, 2005, 11, 87-94.	1.2	14
88	Dynamic Rheological Analysis of MLVs and Lamellar Phases in the System C12E4 / D2O. Applied Rheology, 2005, 15, 230-237.	3.5	5
89	NMR Investigation of Ionic Liquidâ”LiX Mixtures:Â Pyrrolidinium Cations and TFSI-Anions. Journal of Physical Chemistry B, 2005, 109, 22814-22819.	1.2	178
90	Rheological Properties of the Reverse Mesophases of the Pluronic L64/P-Xylene/Water System. Applied Rheology, 2004, 14, 315-323.	3.5	1

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91	Mechanical properties of PAN-based gel electrolytes: small-amplitude oscillatory shear study. Plastics, Rubber and Composites, 2004, 33, 125-129.	0.9	1
92	Some physicochemical properties of PAN-based electrolytes: solution and gel microstructures. Solid State Ionics, 2004, 167, 213-220.	1.3	18
93	Indirect detection of structural changes on the pluronic Pe 6200/H2O system by rheological measurements. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 245, 183-192.	2.3	3
94	Structural changes in CTAB/H2O mixtures using a rheological approach. Physical Chemistry Chemical Physics, 2004, 6, 2364.	1.3	75
95	Dynamic phase diagram and onion formation in the system C10E3/D2O. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 228, 85-90.	2.3	51
96	Temperature dependence of lithium ion solvation in ethylene carbonateâ€“LiClO4 solutions. Journal of Chemical Physics, 2003, 118, 5537-5541.	1.2	43
97	Solution and Liquid Crystalline Microstructures in Sodium Taurodeoxycholate/D2O Mixtures. Langmuir, 2003, 19, 1990-1999.	1.6	19
98	A Defective Lamellar Phase in a Nonionic Surfactant Water System Studied by NMR Methods. Molecular Crystals and Liquid Crystals, 2003, 398, 157-167.	0.4	5
99	Temperature evolution of thermoreversible polymer gel electrolytes LiClO4/ethylene carbonate/poly(acrylonitrile). Journal of Chemical Physics, 2002, 117, 7373-7380.	1.2	21
100	A study of stability of plasticized PEO electrolytes. Solid State Ionics, 2002, 146, 143-150.	1.3	47
101	Azimuthal anchoring energy of a chiral nematic in cylindrical cavities. Applied Physics Letters, 1999, 75, 343-345.	1.5	4