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List of Publications by Year
in descending order

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106 papers	1,375 citations	361413 20 h-index	434195 31 g-index
106 all docs	106 docs citations	106 times ranked	1319 citing authors

#	Article	IF	Citations
1	Preparation and Characterization of Nanocomposite Polymer Membranes Containing Functionalized SnO2 Additives. Membranes, 2014, 4, 123-142.	3.0	69
2	Absence of the Structural Phase Transition in Ammonia Borane Dispersed in Mesoporous Silica: Evidence of Novel Thermodynamic Properties. Journal of Physical Chemistry C, 2009, 113, 10319-10321.	3.1	65
3	Ionic liquid electrolytes for high-voltage, lithium-ion batteries. Journal of Power Sources, 2020, 479, 228791.	7.8	64
4	Point Defect Dynamics and Evolution of Chemical Reactions in Alanates by Anelastic Spectroscopy. Journal of Physical Chemistry B, 2005, 109, 1168-1173.	2.6	62
5	Infrared spectra of bis(trifluoromethanesulfonyl)imide based ionic liquids: Experiments and DFT simulations. Vibrational Spectroscopy, 2014, 74, 81-87.	2.2	54
6	Fast H-vacancy Dynamics during Alanate Decomposition by Anelastic Spectroscopy. Proposition of a Model for Ti-enhanced Hydrogen Transport. Journal of Physical Chemistry B, 2006, 110, 9105-9111.	2.6	49
7	Phase Transitions of PYR₁₄-TFSI as a Function of Pressure and Temperature: the Competition between Smaller Volume and Lower Energy Conformer. Journal of Physical Chemistry B, 2016, 120, 2921-2928.	2.6	43
8	Stabilization of Different Conformers of Bis(trifluoromethanesulfonyl)imide Anion in Ammonium-Based Ionic Liquids at Low Temperatures. Journal of Physical Chemistry A, 2014, 118, 8758-8764.	2.5	42
9	Hydrogen Dynamics and Characterization of the Tetragonal-to-Orthorhombic Phase Transformation in Ammonia Borane. Journal of Physical Chemistry C, 2009, 113, 5872-5878.	3.1	34
10	The Complex Dance of the Two Conformers of Bis(trifluoromethanesulfonyl)imide as a Function of Pressure and Temperature. Journal of Physical Chemistry B, 2016, 120, 1312-1318.	2.6	32
11	Interplay between local structure and transport properties in iron-doped LiCoPO₄ olivines. Journal of Materials Chemistry A, 2017, 5, 14020-14030.	10.3	31
12	Decomposition of NH3BH3 at sub-ambient pressures: A combined thermogravimetryâ€“differential thermal analysisâ€“mass spectrometry study. Journal of Power Sources, 2010, 195, 1615-1618.	7.8	29
13	Lithium nitride as hydrogen storage material. International Journal of Hydrogen Energy, 2008, 33, 3107-3110.	7.1	28
14	Developments in the Niâ€“Nbâ€“Zr amorphous alloy membranes. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	27
15	Low-Temperature Phase Transitions of 1-Butyl-1-methylpyrrolidinium Bis(trifluoromethanesulfonyl)imide Swelling a Polyvinylidenefluoride Electrospun Membrane. Journal of Physical Chemistry C, 2014, 118, 5749-5755.	3.1	24
16	Effects of C(2) Methylation on Thermal Behavior and Interionic Interactions in Imidazolium-Based Ionic Liquids with Highly Symmetric Anions. Applied Sciences (Switzerland), 2018, 8, 1043.	2.5	24
17	Tailoring the physical properties of the mixtures of ionic liquids: a microscopic point of view. Physical Chemistry Chemical Physics, 2017, 19, 8322-8329.	2.8	23
18	Analysis of the Phase Stability of LiMO2 Layered Oxides (M = Co, Mn, Ni). Crystals, 2020, 10, 526.	2.2	23

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19	Motion of point defects and monitoring of chemical reactions in sodium aluminium hydride. Journal of Alloys and Compounds, 2005, 404-406, 748-751.	5.5	22
20	Dynamics of defects in alanates. Journal of Alloys and Compounds, 2007, 446-447, 260-263.	5.5	22
21	Relaxation Processes and Structural Changes in Li- and Na-Doped Fulleranes for Hydrogen Storage. Journal of Physical Chemistry C, 2012, 116, 16365-16370.	3.1	22
22	Interaction of 1-butyl-1-methylpyrrolidinium bis(trifluoromethanesulfonyl)imide with an electrospun PVdF membrane: Temperature dependence of the concentration of the anion conformers. Journal of Chemical Physics, 2015, 143, 094707.	3.0	20
23	Temperature Dependence of the Infrared Spectrum of Ammonia Borane: Librations, Rotations, and Molecular Vibrations. Journal of Physical Chemistry C, 2013, 117, 729-734.	3.1	19
24	An Infrared Spectroscopy Study of the Conformational Evolution of the Bis(trifluoromethanesulfonyl)imide Ion in the Liquid and in the Glass State. Advances in Condensed Matter Physics, 2015, 2015, 1-11.	1.1	19
25	Monoclinic and Orthorhombic NaMnO2 for Secondary Batteries: A Comparative Study. Energies, 2021, 14, 1230.	3.1	19
26	Monitoring of chemical reactions and point defect dynamics in sodium alanates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 442, 75-78.	5.6	17
27	Temperature Dependence of the Elastic Modulus of (Ni0.6Nb0.4)1â^'xZrx Membranes: Effects of Thermal Treatments and Hydrogenation. Energies, 2015, 8, 3944-3954.	3.1	17
28	Effects of water freezing on the mechanical properties of nafion membranes. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 1421-1425.	2.1	16
29	Relaxation Dynamics and Phase Transitions in Ionic Liquids: Viscoelastic Properties from the Liquid to the Solid State. Journal of Physical Chemistry B, 2015, 119, 12905-12911.	2.6	16
30	Influence of Alkyl Chain Length on Microscopic Configurations of the Anion in the Crystalline Phases of PYR_{1A}-TFSI. Journal of Physical Chemistry C, 2017, 121, 11129-11135.	3.1	16
31	Hydrogen absorption properties of amorphous (Ni0.6Nb0.4â^'yTay)100â^'xZrx membranes. Progress in Natural Science: Materials International, 2017, 27, 126-131.	4.4	16
32	The effect of ether-functionalisation in ionic liquids analysed by DFT calculation, infrared spectra, and Kamletâ€“Taft parameters. Physical Chemistry Chemical Physics, 2018, 20, 7989-7997.	2.8	16
33	A study of the conformers of the N,N-diethyl-N-methyl-N-propylammonium ion by means of infrared spectroscopy and DFT calculations. Vibrational Spectroscopy, 2015, 80, 11-16.	2.2	15
34	An extensive study of the Mg Fe H material obtained by reactive ball milling of MgH 2 and Fe in a molar ratio 3:1. International Journal of Hydrogen Energy, 2017, 42, 22333-22341.	7.1	15
35	Study of the hydrogenation/dehydrogenation process in the Mgâ€“Niâ€“Câ€“Al system. Journal of Alloys and Compounds, 2015, 645, S239-S241.	5.5	14
36	The infrared spectra of protic ionic liquids: performances of different computational models to predict hydrogen bonds and conformer evolution. Physical Chemistry Chemical Physics, 2020, 22, 7497-7506.	2.8	14

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37	Hydrogen and Deuterium Solubility in Commercial Pdâ€“Ag Alloys for Hydrogen Purification. ChemEngineering, 2017, 1, 14.	2.4	12
38	Extremely Pure Mg2FeH6 as a Negative Electrode for Lithium Batteries. Energies, 2018, 11, 1952.	3.1	11
39	Composite Nafion Membranes with CaTiO3â^Î´ Additive for Possible Applications in Electrochemical Devices. Membranes, 2019, 9, 143.	3.0	11
40	Decomposition temperatures and vapour pressures of selected ionic liquids for electrochemical applications. Journal of Thermal Analysis and Calorimetry, 2020, 142, 1791-1797.	3.6	11
41	Determination of the molecular structure of amorphous Mg(B3H8)2(THF)2 through infrared spectroscopic and computational studies. International Journal of Hydrogen Energy, 2016, 41, 5986-5993.	7.1	10
42	Molecular Assembling in Mixtures of Hydrophilic 1-Butyl-1-Methylpyrrolidinium Dicyanamide Ionic Liquid and Water. Applied Sciences (Switzerland), 2020, 10, 4837.	2.5	10
43	Effects of the annealing of amorphous Ta2O5 coatings produced by ion beam sputtering concerning the effusion of argon and the chemical composition. Journal of Non-Crystalline Solids, 2021, 557, 120651.	3.1	10
44	Local structure and magnetic properties of Mn substituted manganites studied by EXAFS and Dc magnetic measurements. Solid State Communications, 2005, 136, 244-249.	1.9	9
45	Low Frequency Mechanical Spectroscopy Study of Three Pyrrolidinium Based Ionic Liquids. Archives of Metallurgy and Materials, 2015, 60, 385-390.	0.6	9
46	Highâ€Temperature Structural Evolution of the Disordered LiMn_{1.5}Ni_{0.5}O₄. Journal of the American Ceramic Society, 2016, 99, 1815-1822.	3.8	9
47	Pressurizing the mixtures of two ionic liquids: Crystallization versus vetrification. Journal of Raman Spectroscopy, 2017, 48, 1819-1827.	2.5	9
48	Evidence of the CHÂ·Â·Â·O HydrogenBonding in Imidazolium-Based Ionic Liquids from Far-Infrared Spectroscopy Measurements and DFT Calculations. International Journal of Molecular Sciences, 2021, 22, 6155.	4.1	9
49	Mechanisms of the semi-insulating conversion of InP by anelastic spectroscopy. Physical Review B, 2000, 62, 1828-1834.	3.2	8
50	EXAFS study of LaNi5 and LaNi4.5Al0.5. Journal of Alloys and Compounds, 2007, 433, 33-36.	5.5	8
51	Relaxation dynamics in pyrrolidinium based ionic liquids: The role of the anion conformers. Journal of Molecular Liquids, 2017, 243, 9-13.	4.9	8
52	New Studies of the Physical Properties of Metallic Amorphous Membranes for Hydrogen Purification. Challenges, 2017, 8, 4.	1.7	8
53	Crystallization of mixtures of hydrophilic ionic liquids and water: Evidence of microscopic inhomogeneities. Journal of Colloid and Interface Science, 2019, 552, 43-50.	9.4	8
54	Extended x-ray absorption fine structure study of the MnAs local structure at the phase transitions. Journal of Physics Condensed Matter, 2005, 17, 1537-1545.	1.8	7

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55	A spectroscopic investigation of hydrogenated Li doped fullerane. Journal of Alloys and Compounds, 2013, 580, S67-S69.	5.5	7
56	A Computational and Experimental Study of the Conformers of Pyrrolidinium Ionic Liquid Cations Containing an Ethoxy Group in the Alkyl Side Chain. Advances in Chemistry, 2016, 2016, 1-9.	1.1	7
57	Hydrogen sorption properties of V85Ni15. International Journal of Hydrogen Energy, 2018, 43, 2817-2822.	7.1	7
58	Rotational dynamics in ammonia borane: Evidence of strong isotope effects. Journal of Alloys and Compounds, 2013, 580, S63-S66.	5.5	6
59	The infrared spectrum of bis(fluorosulfonyl)imide revisited: Attractive performances of the PBE0/6-31G** model. Vibrational Spectroscopy, 2016, 82, 16-21.	2.2	6
60	Dehydrogenation of ammonia borane aided by hydrophobic ionic liquids. Journal of Thermal Analysis and Calorimetry, 2017, 129, 663-669.	3.6	6
61	A Study of the Conformers of the (Nonafluorobutanesulfonyl)imide Ion by Means of Infrared Spectroscopy and Density Functional Theory (DFT) Calculations. Challenges, 2017, 8, 7.	1.7	6
62	A Novel Li + â€Conducting Polymer Membrane Gelled by Fluorineâ€Free Electrolyte Solutions for Liâ€Ion Batteries. Batteries and Supercaps, 2020, 3, 1112-1119.	4.7	6
63	The decomposition reaction of lithium amide studied by anelastic spectroscopy and thermogravimetry. International Journal of Materials Research, 2008, 99, 487-490.	0.3	6
64	Anelastic spectroscopy study of iron carbonate scales from CO2 corrosion of steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 521-522, 343-346.	5.6	5
65	Novel materials for solid-state hydrogen storage: Anelastic spectroscopy studies. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 521-522, 134-138.	5.6	5
66	Phase Transitions in Polymers for Lithium Batteries. Solid State Phenomena, 0, 184, 351-354.	0.3	5
67	Hydrogen Induced Abrupt Structural Expansion at High Temperatures of a Ni32Nb28Zr30Cu10 Membrane for H2 Purification. Membranes, 2016, 6, 48.	3.0	5
68	New Experimental Evidences Regarding Conformational Equilibrium in Ammoniumâ^'Bis(trifluoromethanesulfonyl)imide Ionic Liquids. ChemPhysChem, 2018, 19, 2776-2781.	2.1	5
69	Inter- and Intramolecular Interactions in Ether-Functionalized Ionic Liquids. Journal of Physical Chemistry B, 2021, 125, 2380-2388.	2.6	5
70	Crystallization and hydrogen absorption in a Ni32Nb28Zr30Fe10 melt spun alloy and correlation with icosahedral clusters. International Journal of Hydrogen Energy, 2022, 47, 10298-10307.	7.1	5
71	Argon and Other Defects in Amorphous SiO2 Coatings for Gravitational-Wave Detectors. Coatings, 2022, 12, 1001.	2.6	5
72	Anelastic spectroscopy as a probe for the structure and dynamics of defects in semiconductors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 91-92, 498-502.	3.5	4

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73	Local structure characterization of superconducting MgCNi3 prepared by SHS technique. Physica C: Superconductivity and Its Applications, 2007, 454, 77-81.	1.2	4
74	An EXAFS study of RuSr2GdCu2O8: Evidence of magnetoelastic coupling. Physica C: Superconductivity and Its Applications, 2007, 467, 167-173.	1.2	4
75	An investigation of the structural phase transition of ammonia borane. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 521-522, 169-171.	5.6	4
76	The tetragonal-to-orthorhombic phase transformation in ammonia borane and in its deuterium substituted compounds. Journal of Alloys and Compounds, 2011, 509, S709-S713.	5.5	4
77	Dynamics of Mn3+ in off-stoichiometric LiMn1.5Ni0.5O4. Journal of Alloys and Compounds, 2014, 604, 83-86.	5.5	4
78	Relaxational Dynamics in the PYR14-IM14 Ionic Liquid by Mechanical Spectroscopy. Materials Research, 2018, 21, .	1.3	4
79	Replacement of Cobalt in Lithium-Rich Layered Oxides by n-Doping: A DFT Study. Applied Sciences (Switzerland), 2021, 11, 10545.	2.5	4
80	Structural phase transitions and adduct release in calcium borohydride. Journal of Alloys and Compounds, 2011, 509, S691-S693.	5.5	3
81	Release of Tetrahydrofuran, Structural Phase Transitions and Dynamic Relaxation Processes in Ca (BH₄)₂. Solid State Phenomena, 0, 184, 24-32.	0.3	3
82	An Innovative Procedure to Evaluate the Hydrogen Diffusion Coefficient in Metals from Absorption Measurements. Energies, 2019, 12, 1652.	3.1	3
83	NAi/Li Antisite Defects in the Li1.2Ni0.2Mn0.6O2 Li-Rich Layered Oxide: A DFT Study. Crystals, 2022, 12, 723.	2.2	3
84	Dynamics of H trapped by defects in type IV and IIIâ€“V semiconductors. Journal of Alloys and Compounds, 2002, 330-332, 420-425.	5.5	2
85	An anelastic spectroscopy, differential scanning calorimetry and X-ray diffraction study of the crystallization process of Mgâ€“Niâ€“Fe alloys. Journal of Alloys and Compounds, 2008, 463, 148-152.	5.5	2
86	Decomposition reactions and phase transformations in the lithiumâ€“nitrogenâ€“hydrogen system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 521-522, 155-158.	5.6	2
87	Hydrogen isotope effects on the structural phase transition of NH3BH3. International Journal of Hydrogen Energy, 2011, 36, 7927-7931.	7.1	2
88	Hot Pressing of Electrospun PVdF-CTFE Membranes as Separators for Lithium Batteries: a Delicate Balance Between Mechanical Properties and Retention. Materials Research, 2018, 21, .	1.3	2
89	Influence of the Alkyl Chain Length on the Low Temperature Phase Transitions of Imidazolium Based Ionic Liquids. Journal of Solution Chemistry, 2022, 51, 279-295.	1.2	2
90	Promising Isotope Effect in Pd77Ag23 for Hydrogen Separation. ChemEngineering, 2021, 5, 51.	2.4	2

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91	Structure and vibrational features of the protic ionic liquid 1,8-diazabicyclo[5.4.0]-undec-7-ene-8-ium bis(trifluoromethanesulfonyl)amide, [DBUH][TFSI]. Journal of Molecular Liquids, 2022, 347, 117981.	4.9	2
92	So Similar, yet so Different: The Case of the Ionic Liquids N-Trimethyl-N (2-methoxyethyl)ammonium Bis (trifluoromethanesulfonyl)imide and N,N-Diethyl-N-methyl-N(2-methoxyethyl)ammonium bis(trifluoromethanesulfonyl)imide. Frontiers in Physics, 2022, 10, .	2.1	2
93	Synthesis, Physical Properties and Electrochemical Applications of Two Ionic Liquids Containing the Asymmetric (Fluoromethylsulfonyl)(Trifluoromethylsulfonyl)imide Anion. Applied Sciences (Switzerland), 2022, 12, 4524.	2.5	2
94	Mechanical spectroscopy study of ionic liquids with quaternary cations: Effect of conformational flexibility. Journal of Alloys and Compounds, 2022, 919, 165860.	5.5	2
95	Anelastic relaxation in semi-insulating InP. Journal of Alloys and Compounds, 2000, 310, 288-291.	5.5	1
96	Temperature study of MnAs local structure by EXAFS. Solid State Communications, 2003, 125, 607-609.	1.9	1
97	An anelastic spectroscopy investigation of carbon nanotubes produced by the high-pressure CO method. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 442, 314-318.	5.6	1
98	Temperature and Pressure Dependence of the Infrared Spectrum of 1-Ethyl-3-Methylimidazolium Trifluoromethanesulfonate Ionic Liquid. Applied Sciences (Switzerland), 2020, 10, 4404.	2.5	1
99	New insights into chloromethyl-oxirane and chloromethyl-thiirane in liquid and solid phase from low-temperature infrared spectroscopy and ab initio modeling. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 247, 119061.	3.9	1
100	Effect of Transitional Metals (Mn and Ni) Substitution in LiCoPO4 Olivines. Molecules, 2020, 25, 601.	3.8	1
101	Mechanochemical Synthesis and Hydrogen Sorption Properties of a V-Ni Alloy. Hydrogen, 2022, 3, 112-122.	3.4	1
102	Hydrogen trapping by defects in semiconductors studied by anelastic spectroscopy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 370, 114-117.	5.6	0
103	Local Order and Structure in Mn-Substituted Manganites Studied by EXAFS. Journal of Superconductivity and Novel Magnetism, 2005, 18, 643-647.	0.5	0
104	H(D)-lattice interactions in single wall carbon nanotubes. Journal of Alloys and Compounds, 2007, 446-447, 376-379.	5.5	0
105	The crystallization process of Mgâ€“Niâ€“Fe alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 521-522, 172-174.	5.6	0
106	Anelastic spectroscopy investigation of nano-confined alanates. Journal of Alloys and Compounds, 2013, 580, S70-S72.	5.5	0