Faiz Ullah Shah

List of Publications by Year
in descending order

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64 papers	1,560 citations	331259 21 h-index	344852 36 g-index
67 all docs	67 docs citations	67 times ranked	1560 citing authors

#	Article	IF	Citations
1	Boron in Tribology: From Borates to Ionic Liquids. Tribology Letters, 2013, 51, 281-301.	1.2	152
2	Novel halogen-free chelated orthoborateâ€“phosphonium ionic liquids: synthesis and tribophysical properties. Physical Chemistry Chemical Physics, 2011, 13, 12865.	1.3	147
3	Efficient conversion of lignocellulosic biomass to levulinic acid using acidic ionic liquids. Carbohydrate Polymers, 2018, 181, 208-214.	5.1	119
4	Ether Functionalized Choline Tethered Amino Acid Ionic Liquids for Enhanced CO₂ Capture. ACS Sustainable Chemistry and Engineering, 2016, 4, 5441-5449.	3.2	69
5	Halogen-free pyrrolidinium bis(mandelato)borate ionic liquids: some physicochemical properties and lubrication performance as additives to polyethylene glycol. RSC Advances, 2014, 4, 30617-30623.	1.7	59
6	Atomistic Insight into Orthoborate-Based Ionic Liquids: Force Field Development and Evaluation. Journal of Physical Chemistry B, 2014, 118, 8711-8723.	1.2	57
7	Interfacial Antiwear and Physicochemical Properties of Alkylborate-dithiophosphates. ACS Applied Materials & Interfaces, 2011, 3, 956-968.	4.0	48
8	Determination of heterocyclic aromatic amines in human urine by using hollow-fibre supported liquid membrane extraction and liquid chromatography-ultraviolet detection system. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2008, 870, 203-208.	1.2	41
9	Synthesis, Physicochemical, and Tribological Characterization of S-Di-n-octoxyboron-O,Oâ€²-di-n-octyldithiophosphate. ACS Applied Materials & Interfaces, 2009, 1, 2835-2842.	4.0	39
10	Halogen-free chelated orthoborate ionic liquids and organic ionic plastic crystals. Journal of Materials Chemistry, 2012, 22, 6928.	6.7	38
11	Biferrocenyl Schiff bases as efficient corrosion inhibitors for an aluminium alloy in HCl solution: a combined experimental and theoretical study. RSC Advances, 2020, 10, 7585-7599.	1.7	37
12	Thermal stability of choline based amino acid ionic liquids. Journal of Molecular Liquids, 2018, 266, 597-602.	2.3	33
13	Plasticizing and crosslinking effects of borate additives on the structure and properties of poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Over	1.7	31
14	Transport and Association of Ions in Lithium Battery Electrolytes Based on Glycol Ether Mixed with Halogen-Free Orthoborate Ionic Liquid. Scientific Reports, 2017, 7, 16340.	1.6	31
15	Novel Alkylborateâ€“Dithiocarbamate Lubricant Additives: Synthesis and Tribophysical Characterization. Tribology Letters, 2012, 45, 67-78.	1.2	30
16	The effect of the cation alkyl chain length on density and diffusion in dialkylpyrrolidinium bis(mandelato)borate ionic liquids. Physical Chemistry Chemical Physics, 2014, 16, 26798-26805.	1.3	27
17	Ion dynamics in halogen-free phosphonium bis(salicylato)borate ionic liquid electrolytes for lithium-ion batteries. Physical Chemistry Chemical Physics, 2017, 19, 16721-16730.	1.3	27
18	High CO₂ absorption capacity by chemisorption at cations and anions in choline-based ionic liquids. Physical Chemistry Chemical Physics, 2017, 19, 31216-31226.	1.3	27

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19	NMR self-diffusion study of a phosphonium bis(mandelato)borate ionic liquid. Physical Chemistry Chemical Physics, 2013, 15, 9281.	1.3	25
20	Editorial: Properties and Applications of Ionic Liquids in Energy and Environmental Science. Frontiers in Chemistry, 2020, 8, 627213.	1.8	24
21	Self-diffusion of phosphonium Bis(Salicylato)Borate ionic liquid in pores of Vycor porous glass. Microporous and Mesoporous Materials, 2016, 230, 128-134.	2.2	23
22	Interfacial Behavior of Orthoborate Ionic Liquids at Inorganic Oxide Surfaces Probed by NMR, IR, and Raman Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 19687-19698.	1.5	23
23	One-Pot Deconstruction and Conversion of Lignocellulose Into Reducing Sugars by Pyridinium-Based Ionic Liquidâ€“Metal Salt System. Frontiers in Chemistry, 2020, 8, 236.	1.8	22
24	Insights into the effect of CO₂ absorption on the ionic mobility of ionic liquids. Physical Chemistry Chemical Physics, 2016, 18, 28617-28625.	1.3	20
25	Friction of Ionic Liquidâ€“Glycol Ether Mixtures at Titanium Interfaces: Negative Load Dependence. Advanced Materials Interfaces, 2018, 5, 1800263.	1.9	20
26	Pharmaceutical Crystal Engineering Using Ionic Liquid Anionâ€“Solute Interactions. Crystal Growth and Design, 2017, 17, 1729-1734.	1.4	19
27	Structure and dynamics elucidation of ionic liquids using multidimensional Laplace NMR. Chemical Communications, 2017, 53, 11056-11059.	2.2	19
28	Fluorine-Free Ionic Liquid-Based Electrolyte for Supercapacitors Operating at Elevated Temperatures. ACS Sustainable Chemistry and Engineering, 2020, 8, 10212-10221.	3.2	19
29	Material Characterization and Influence of Sliding Speed and Pressure on Friction and Wear Behavior of Self-Lubricating Bearing Materials for Hydropower Applications. Lubricants, 2018, 6, 39.	1.2	18
30	Transition anionic complex in trihexyl(tetradecyl)phosphonium-bis(oxalato)borate ionic liquid â€“ revisited. Physical Chemistry Chemical Physics, 2021, 23, 6190-6203.	1.3	17
31	Selfâ€diffusion and interactions in mixtures of imidazolium bis(mandelato)borate ionic liquids with polyethylene glycol: ¹H NMR study. Magnetic Resonance in Chemistry, 2015, 53, 493-497.	1.1	16
32	High flux acetate functionalized silica membranes based on in-situ co-condensation for CO2/N2 separation. Journal of Membrane Science, 2016, 520, 574-582.	4.1	16
33	Rapid carbene formation increases ion diffusivity in an imidazolium acetate ionic liquid confined between polar glass plates. Physical Chemistry Chemical Physics, 2019, 21, 22531-22538.	1.3	15
34	Experimental and theoretical insights into the corrosion inhibition activity of novel Schiff bases for aluminum alloy in acidic medium. RSC Advances, 2019, 9, 36455-36470.	1.7	15
35	Effect of structural variation in biomass-derived nonfluorinated ionic liquids electrolytes on the performance of supercapacitors. Journal of Energy Chemistry, 2022, 69, 174-184.	7.1	14
36	Dynamic properties of imidazolium orthoborate ionic liquids mixed with polyethylene glycol studied by NMR diffusometry and impedance spectroscopy. Magnetic Resonance in Chemistry, 2018, 56, 113-119.	1.1	13

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37	Controlling the nanoscale friction by layered ionic liquid films. Physical Chemistry Chemical Physics, 2020, 22, 14941-14952.	1.3	13
38	The effect of anion architecture on the lubrication chemistry of phosphonium orthoborate ionic liquids. Scientific Reports, 2021, 11, 24021.	1.6	13
39	CO2 absorption and ion mobility in aqueous choline-based ionic liquids. Journal of Molecular Liquids, 2019, 276, 748-752.	2.3	12
40	Poly-thiourea formaldehyde based anticorrosion marine coatings on type 304 stainless steel. Journal of Materials Research and Technology, 2020, 9, 2146-2153.	2.6	12
41	Structural and Ion Dynamics in Fluorine-Free Oligoether Carboxylate Ionic Liquid-Based Electrolytes. Journal of Physical Chemistry B, 2020, 124, 9690-9700.	1.2	12
42	Effect of Aromaticity in Anion on the Cationâ€“Anion Interactions and Ionic Mobility in Fluorine-Free Ionic Liquids. Journal of Physical Chemistry B, 2020, 124, 11962-11973.	1.2	12
43	Ion Transport and Electrochemical Properties of Fluorine-Free Lithium-Ion Battery Electrolytes Derived from Biomass. ACS Sustainable Chemistry and Engineering, 2021, 9, 7769-7780.	3.2	12
44	The effect of nanoscale friction of mesoporous carbon supported ionic liquids on the mass transfer of CO2 adsorption. Physical Chemistry Chemical Physics, 2020, 22, 1097-1106.	1.3	11
45	Detailing molecular interactions of ionic liquids with charged SiO2 surfaces: A systematic AFM study. Journal of Molecular Liquids, 2022, 350, 118506.	2.3	10
46	Engineering electroactive and biocompatible tetra(aniline)-based terpolymers with tunable intrinsic antioxidant properties in vivo. Materials Science and Engineering C, 2020, 108, 110456.	3.8	9
47	Comparing the Thermal and Electrochemical Stabilities of Two Structurally Similar Ionic Liquids. Molecules, 2020, 25, 2388.	1.7	8
48	Probing the nanofriction of non-halogenated phosphonium-based ionic liquid additives in glycol ether oil on titanium surface. Friction, 2022, 10, 268-281.	3.4	8
49	Synthesis, Crystal Structures, and Spectroscopic Characterization of Bis-aldehyde Monomers and Their Electrically Conductive Pristine Polyazomethines. Polymers, 2019, 11, 1498.	2.0	7
50	Reactivity of CO2 with aqueous choline-based ionic liquids probed by solid-state NMR spectroscopy. Journal of Molecular Liquids, 2019, 286, 110918.	2.3	7
51	Ionic liquids on uncharged and charged surfaces: In situ microstructures and nanofriction. Friction, 2022, 10, 1893-1912.	3.4	7
52	Solidâ€state ¹³C, ¹⁵N and ²⁹Si NMR characterization of block copolymers with CO₂ capture properties. Magnetic Resonance in Chemistry, 2016, 54, 734-739.	1.1	6
53	Zinc-Coordination Polymer-Derived Porous Carbon-Supported Stable PtM Electrocatalysts for Methanol Oxidation Reaction. ACS Omega, 2021, 6, 6780-6790.	1.6	6
54	On the ionic liquid films â€˜pinnedâ€™ by coreâ€“shell structured Fe₃O₄@carbon nanoparticles and their tribological properties. Physical Chemistry Chemical Physics, 2019, 21, 26387-26398.	1.3	5

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55	Understanding the Interaction of Boric Acid and CO2 with Ionic Liquids in Aqueous Medium by Multinuclear NMR Spectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 552-560.	3.2	5
56	Unusual ion transport behaviour of ethylammonium nitrate mixed with lithium nitrate. Journal of Molecular Liquids, 2021, 340, 116841.	2.3	5
57	Phosphonium-Based Ionic Liquid Significantly Enhances SERS of Cytochrome c on TiO₂ Nanotube Arrays. ACS Applied Materials & Interfaces, 2022, 14, 27456-27465.	4.0	5
58	Synthesis, structure and characterization of some Schiff bases bearing phenylferrocene. Applied Organometallic Chemistry, 2007, 21, 758-762.	1.7	4
59	Tunable Self-Assembled Nanostructures of Electroactive PEGylated Tetra(Aniline) Based ABA Triblock Structures in Aqueous Medium. Frontiers in Chemistry, 2019, 7, 518.	1.8	4
60	Diffusion of Ions in Phosphonium Orthoborate Ionic Liquids Studied by 1H and 11B Pulsed Field Gradient NMR. Frontiers in Chemistry, 2020, 8, 119.	1.8	4
61	Translational and reorientational dynamics of ionic liquid-based fluorine-free lithium-ion battery electrolytes. Journal of Molecular Liquids, 2022, 345, 117001.	2.3	3
62	Oriented Carbon Fiber Networks by Design from Renewables for Electrochemical Applications. ACS Sustainable Chemistry and Engineering, 2021, 9, 12142-12154.	3.2	3
63	Molecular interactions of ionic liquids with SiO₂ surfaces determined from colloid probe atomic force microscopy. Physical Chemistry Chemical Physics, 2022, 24, 12808-12815.	1.3	3
64	Two structural types of dithiocarbamato-chlorido complexes of mercury(II): Preparation, supramolecular self-assembly, solid-state 13C and 15N NMR characterisation and thermal behaviour of pseudo-polymeric compounds of [Hg2(S2CNBu2)2Cl2] and [Hg4(S2CNiBu2)6][Hg2Cl6]. Inorganica Chimica Acta, 2022, 533, 120786.	1.2	0