Shiro Seki

List of Publications by Year
in descending order

46 papers	2,950 citations	236925 25 h-index	243625 44 g-index
46 all docs	46 docs citations	46 times ranked	3314 citing authors

#	Article	IF	Citations
1	Oxidative-Stability Enhancement and Charge Transport Mechanism in Glymeâ€“Lithium Salt Equimolar Complexes. Journal of the American Chemical Society, 2011, 133, 13121-13129.	13.7	663
2	Solvate Ionic Liquid Electrolyte for Liâ€“S Batteries. Journal of the Electrochemical Society, 2013, 160, A1304-A1310.	2.9	421
3	Comprehensive Refractive Index Property for Room-Temperature Ionic Liquids. Journal of Chemical & Engineering Data, 2012, 57, 2211-2216.	1.9	191
4	Distinct Difference in Ionic Transport Behavior in Polymer Electrolytes Depending on the Matrix Polymers and Incorporated Salts. Journal of Physical Chemistry B, 2005, 109, 3886-3892.	2.6	154
5	Origin of the Low-Viscosity of [emim][(FSO₂)₂N] Ionic Liquid and Its Lithium Salt Mixture: Experimental and Theoretical Study of Self-Diffusion Coefficients, Conductivities, and Intermolecular Interactions. Journal of Physical Chemistry B, 2010, 114, 16329-16336.	2.6	144
6	Anion Conformation of Low-Viscosity Room-Temperature Ionic Liquid 1-Ethyl-3-methylimidazolium Bis(fluorosulfonyl) Imide. Journal of Physical Chemistry B, 2007, 111, 12829-12833.	2.6	127
7	Effects of cation and anion on physical properties of room-temperature ionic liquids. Journal of Molecular Liquids, 2010, 152, 9-13.	4.9	118
8	Structures of [Li(glyme)]⁺ complexes and their interactions with anions in equimolar mixtures of glymes and Li[TFSA]: analysis by molecular dynamics simulations. Physical Chemistry Chemical Physics, 2015, 17, 126-129.	2.8	87
9	Li⁺ Local Structure in Hydrofluoroether Diluted Li-Glyme Solvate Ionic Liquid. Journal of Physical Chemistry B, 2016, 120, 3378-3387.	2.6	81
10	Relationships between center atom species (N, P) and ionic conductivity, viscosity, density, self-diffusion coefficient of quaternary cation room-temperature ionic liquids. Physical Chemistry Chemical Physics, 2009, 11, 3509.	2.8	80
11	Intermolecular Interactions in Li⁺â€glyme and Li⁺â€glymeâ€“TFSA^{â^'} Complexes: Relationship with Physicochemical Properties of [Li(glyme)][TFSA] Ionic Liquids. ChemPhysChem, 2013, 14, 1993-2001.	2.1	79
12	Liquid structure and conformation of a low-viscosity ionic liquid, N-methyl-N-propyl-pyrrolidinium bis(fluorosulfonyl) imide studied by high-energy X-ray scattering. Journal of Molecular Liquids, 2008, 143, 64-69.	4.9	75
13	Quaternary Ammonium Room-Temperature Ionic Liquid Including an Oxygen Atom in Side Chain/Lithium Salt Binary Electrolytes: Ab Initio Molecular Orbital Calculations of Interactions between Ions. Journal of Physical Chemistry B, 2008, 112, 9914-9920.	2.6	62
14	Physicochemical and Electrochemical Properties of Glyme-LiN(SO2F)2 Complex for Safe Lithium-ion Secondary Battery Electrolyte. Journal of the Electrochemical Society, 2011, 158, A769.	2.9	61
15	Effect of the cation on the stability of cationâ€“glyme complexes and their interactions with the [TFSA]^{â^'} anion. Physical Chemistry Chemical Physics, 2017, 19, 18262-18272.	2.8	49
16	Li⁺ Local Structure in Liâ€“Tetraglyme Solvate Ionic Liquid Revealed by Neutron Total Scattering Experiments with the ^{6/7}Li Isotopic Substitution Technique. Journal of Physical Chemistry Letters, 2016, 7, 2832-2837.	4.6	44
17	EQCM Measurement of Deposition and Dissolution of Lithium in Glyme-Li Salt Molten Complex. Journal of the Electrochemical Society, 2013, 160, A1529-A1533.	2.9	38
18	Long-range Li ion diffusion in NASICON-type Li_{1.5}Al_{0.5}Ge_{1.5}(PO₄)₃ (LAGP) studied by ⁷Li pulsed-gradient spin-echo NMR. Physical Chemistry Chemical Physics, 2017, 19, 23483-23491.	2.8	37

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19	High-Performance Genuine Lithium Polymer Battery Obtained by Fine-Ceramic-Electrolyte Coating of LiCoO[sub 2]. Journal of the Electrochemical Society, 2005, 152, A1985.	2.9	35
20	Lithium ion micrometer diffusion in a garnet-type cubic Li7La3Zr2O12 (LLZO) studied using 7Li NMR spectroscopy. Journal of Chemical Physics, 2017, 146, 024701.	3.0	34
21	Long-cycle-life Lithium-sulfur Batteries with Lithium Solvate Ionic Liquids. Electrochemistry, 2017, 85, 680-682.	1.4	33
22	Transport and Electrochemical Properties of Three Quaternary Ammonium Ionic Liquids and Lithium Salts Doping Effects Studied by NMR Spectroscopy. Journal of Chemical & Engineering Data, 2014, 59, 1944-1954.	1.9	31
23	Effect of binder polymer structures used in composite cathodes on interfacial charge transfer processes in lithium polymer batteries. Electrochimica Acta, 2004, 50, 379-383.	5.2	30
24	Protease resistance of porcine acidic mammalian chitinase under gastrointestinal conditions implies that chitin-containing organisms can be sustainable dietary resources. Scientific Reports, 2017, 7, 12963.	3.3	29
25	Density, Viscosity, Ionic Conductivity, and Self-Diffusion Coefficient of Organic Liquid Electrolytes: Part I. Propylene Carbonate + Li, Na, Mg and Ca Cation Salts. Journal of the Electrochemical Society, 2018, 165, A542-A546.	2.9	25
26	Polyether/Na₃Zr₂Si₂PO₁₂ Composite Solid Electrolytes for All-Solid-State Sodium Batteries. Journal of Physical Chemistry C, 2020, 124, 21948-21956.	3.1	25
27	Investigation of the Ionic Conduction Mechanism of Polyether/Li₇La₃Zr₂O₁₂ Composite Solid Electrolytes by Electrochemical Impedance Spectroscopy. Journal of the Electrochemical Society, 2020, 167, 070559.	2.9	24
28	Local Structure of Li⁺ in Concentrated Ethylene Carbonate Solutions Studied by Low-Frequency Raman Scattering and Neutron Diffraction with ⁶Li/⁷Li Isotopic Substitution Methods. Journal of Physical Chemistry B, 2017, 121, 10979-10987.	2.6	23
29	7Li NMR diffusion studies in micrometre-space for perovskite-type Li0.33La0.55TiO3 (LLTO) influenced by grain boundaries. Solid State Ionics, 2018, 326, 37-47.	2.7	20
30	Effects of non-equimolar lithium salt glyme solvate ionic liquid on the control of interfacial degradation in lithium secondary batteries. RSC Advances, 2016, 6, 33043-33047.	3.6	18
31	Speciation Analysis and Thermodynamic Criteria of Solvated Ionic Liquids: Ionic Liquids or Superconcentrated Solutions?. Journal of Physical Chemistry Letters, 2020, 11, 4517-4523.	4.6	16
32	Densities, Viscosities, and Refractive Indices of Binary Room-Temperature Ionic Liquids with Common Cations/Anions. Journal of Chemical & Engineering Data, 2019, 64, 433-441.	1.9	14
33	Effect of Electrolyte Composition on Performance and Stability of Lithiumâ€“Sulfur Batteries. Energy Technology, 2019, 7, 1900197.	3.8	12
34	Phase transition and conductive acceleration of phosphonium-cation-based room-temperature ionic liquid. Chemical Communications, 2008, , 5541.	4.1	11
35	Non-uniform lithium-ion migration on micrometre scale for garnet- and NASICON-type solid electrolytes studied by ⁷Li PGSE-NMR diffusion spectroscopy. Physical Chemistry Chemical Physics, 2018, 20, 17615-17623.	2.8	11
36	Thermodynamic aspect of sulfur, polysulfide anion and lithium polysulfide: plausible reaction path during discharge of lithiumâ€“sulfur battery. Physical Chemistry Chemical Physics, 2021, 23, 6832-6840.	2.8	11

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37	Dynamic Chelate Effect on the Li⁺-Ion Conduction in Solvate Ionic Liquids. Journal of Physical Chemistry C, 2019, 123, 30228-30233.	3.1	10
38	Precise Analysis of Resistance Components and Estimation of Number of Particles in Li-Ion Battery Electrode Sheets Using LiCoO₂ Single-Particle Electrochemical Properties. Journal of Physical Chemistry C, 2020, 124, 16758-16762.	3.1	7
39	Physicochemical compatibility of highly-concentrated solvate ionic liquids and a low-viscosity solvent. RSC Advances, 2019, 9, 24922-24927.	3.6	6
40	Effects of Anion on Liquid Structures of Ionic Liquids at Graphene Electrode Interface Analyzed by Molecular Dynamics Simulations. Batteries and Supercaps, 2020, 3, 658-667.	4.7	4
41	Analysis of Ionic Transport and Electrode Interfacial Reaction, and NMR One-Dimensional Imaging of Ether-Based Polymer Electrolytes. Journal of the Electrochemical Society, 2021, 168, 060501.	2.9	3
42	Fluoride Ion Conductive Polymer Electrolytes for All-solid-state Fluoride Shuttle Batteries. Electrochemistry, 2020, 88, 310-313.	1.4	3
43	Mouse Acidic Chitinase Effectively Degrades Random-Type Chitosan to Chitooligosaccharides of Variable Lengths under Stomach and Lung Tissue pH Conditions. Molecules, 2021, 26, 6706.	3.8	3
44	Solid Gel Electrolytes with Highly Concentrated Liquid Electrolyte in Polymer Networks and Their Physical and Electrochemical Properties and Application to Sodium Secondary Batteries. Journal of the Electrochemical Society, 2022, 169, 040535.	2.9	1
45	Lithiumâ€“Sulfur Batteries. , 2021, , 393-402.		0
46	Investigation for Charge-Discharge Operations of Li₄Ti₅O₁₂-Sulfur Batteries by Suitable Choice of Materials and Cell Preparation Processes. Electrochemistry, 2022, , .	1.4	0