

# Hajime Matsumoto

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95  
papers

5,915  
citations

38  
h-index

76  
g-index

103  
ext. papers

6,222  
ext. citations

4.6  
avg, IF

5.7  
L-index

#	Paper	IF	Citations
95	Honeycomb layered oxides: structure, energy storage, transport, topology and relevant insights. <i>Chemical Society Reviews</i> , <b>2021</b> , 50, 3990-4030	58.5	15
94	Electrochemically synthesized liquid-sulfur/sulfide composite materials for high-rate magnesium battery cathodes. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 16585-16593	13	2
93	Analytical Measurements to Elucidate Structural Behavior of 2,5-Dimethoxy-1,4-benzoquinone During Charge and Discharge. <i>ChemSusChem</i> , <b>2020</b> , 13, 2354-2363	8.3	4
92	Preparation of Magnesium Salts Composed of Perfluoro Anions and Their Electrochemical Behaviors in Molten Salts. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 020541	3.9	1
91	Preparation and electrochemical properties of ionic liquids for secondary batteries. <i>Denki Kagaku</i> , <b>2020</b> , 88, 129-134	0	
90	Lithium Electrodeposition in Single Molten Salt with Constant Lithium-Ion Concentration at Any Time and Location. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 070502	3.9	2
89	Effect of Temperature on Li Electrodeposition Behavior in Room-Temperature Ionic Liquids Comprising Quaternary Ammonium Cation. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, A2973-A2979	3.9	9
88	Graphene Nanoplatelet Composite Cathode for a Chloroaluminate Ionic Liquid-Based Aluminum Secondary Battery. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 2269-2274	6.1	28
87	Diffusion of Lithium Cation in Low-Melting Lithium Molten Salts. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 4144-4149	3.8	6
86	Graphene Nanoplatelet-Polysulfone Composite Cathodes for High-Power Aluminum Rechargeable Batteries. <i>Electrochemistry</i> , <b>2018</b> , 86, 72-76	1.2	9
85	Solvation-Structure Modification by Concentrating Mg(TFSA)-MgCl-Triglyme Ternary Electrolyte. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 4732-4737	6.4	28
84	Ionic Liquid-Based Electrolytes Containing Surface-Functionalized Inorganic Nanofibers for Quasisolid Lithium Batteries. <i>ACS Omega</i> , <b>2017</b> , 2, 835-841	3.9	14
83	Lithium Molten Salt Battery at Near Room Temperature Using Low-Melting Alkali Metal Melts. <i>ECS Transactions</i> , <b>2016</b> , 73, 95-100	1	1
82	Effect of Charge Transfer Resistance on Morphology of Lithium Electrodeposited in Ionic Liquid. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, D3076-D3079	3.9	19
81	Alkali Metal Salts with Designable Aryltrifluoroborate Anions. <i>Journal of Physical Chemistry B</i> , <b>2016</b> , 120, 9468-76	3.4	6
80	Effects of polyethylene spacer length in polymeric electrolytes on gelation of ionic liquids and ionogel properties. <i>Journal of Polymer Science Part A</i> , <b>2015</b> , 53, 249-255	2.5	4
79	Modulation of Electron Injection Dynamics of Ru-Based Dye/TiO <sub>2</sub> System in the Presence of Three Different Organic Solvents: Role of Solvent Dipole Moment and Donor Number. <i>ChemPhysChem</i> , <b>2015</b> , 16, 1657-62	3.2	7

78	Cation Mixtures of Alkali Metal (Fluorosulfonyl)(trifluoromethylsulfonyl)Amide as Electrolytes for Lithium Secondary Battery. <i>Journal of the Electrochemical Society</i> , <b>2014</b> , 161, A902-A907	3.9	13
77	Lithium Redox in Imidazolium Ionic Liquids Composed of Five-Membered Cyclic Amide. <i>ECS Transactions</i> , <b>2014</b> , 62, 223-230	1	
76	Recent Advances in Ionic Liquids for Lithium Secondary Batteries. <i>Modern Aspects of Electrochemistry</i> , <b>2014</b> , 209-225		2
75	Effect of Current Density on Morphology of Lithium Electrodeposited in Ionic Liquid-Based Electrolytes. <i>Journal of the Electrochemical Society</i> , <b>2014</b> , 161, A1236-A1240	3.9	50
74	Cation and anion dependence of stable geometries and stabilization energies of alkali metal cation complexes with FSA(-), FTA(-), and TFSA(-) anions: relationship with physicochemical properties of molten salts. <i>Journal of Physical Chemistry B</i> , <b>2013</b> , 117, 16212-8	3.4	19
73	Investigation of an Intermediate Temperature Molten Lithium Salt Based on Fluorosulfonyl(trifluoromethylsulfonyl)amide as a Solvent-Free Lithium Battery Electrolyte. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 18829-18836	3.8	32
72	In Situ Morphology Observations of Electrodeposited Lithium in Room-Temperature Ionic Liquids by Optical Microscopy. <i>Chemistry Letters</i> , <b>2013</b> , 42, 77-79	1.7	8
71	Highly Efficient and Specific Gelation of Ionic Liquids by Polymeric Electrolytes to Form Ionogels with Substantially High Gel/Sol Transition Temperatures and Rheological Properties Like Self-Standing Ability and Rapid Recovery. <i>ACS Macro Letters</i> , <b>2012</b> , 1, 1108-1112	6.6	28
70	First-Principles Study of EMIM-FAFSA Molecule Adsorption on a Li(100) Surface as a Model for Li-Ion Battery Electrodes. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 8493-8509	3.8	26
69	Electron Injection Efficiency in Ru-Dye Sensitized TiO <sub>2</sub> in the Presence of Room Temperature Ionic Liquid Solvents Probed by Femtosecond Transient Absorption Spectroscopy: Effect of Varying Anions. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 20213-20219	3.8	19
68	????????????????????,???????????????? <i>Electrochemistry</i> , <b>2012</b> , 80, 1022-1027	1.2	1
67	3.???????????????? ???? ????????? <i>Electrochemistry</i> , <b>2012</b> , 80, 591-595	1.2	
66	1.?????/Li????????????????:?????????????????????. <i>Electrochemistry</i> , <b>2012</b> , 80, 920-924	1.2	
65	In-situ Optical Microscope Morphology Observation of Lithium Electrodeposited in Room Temperature Ionic Liquids Containing Aliphatic Quaternary Ammonium Cation. <i>Electrochemistry</i> , <b>2012</b> , 80, 777-779	1.2	12
64	Electrochemical Windows of Room-Temperature Ionic Liquids (RTILs) <b>2011</b> , 43-63		2
63	Melting and Crystallization Behaviors of Alkali Metal (Fluorosulfonyl)(trifluoromethylsulfonyl)amides. <i>Chemistry Letters</i> , <b>2011</b> , 40, 1105-1106	1.7	7
62	Observation of electrodeposited lithium by optical microscope in room temperature ionic liquid-based electrolyte. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 6663-6669	8.9	64
61	Design, Synthesis, and Electrochemistry of Room-Temperature Ionic Liquids Functionalized with Propylene Carbonate. <i>Angewandte Chemie</i> , <b>2011</b> , 123, 1346-1349	3.6	7

60	Design, synthesis, and electrochemistry of room-temperature ionic liquids functionalized with propylene carbonate. <i>Angewandte Chemie - International Edition</i> , <b>2011</b> , 50, 1310-3	16.4	60
59	Effects of conformational flexibility of alkyl chains of cations on diffusion of ions in ionic liquids. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 5987-93	3.6	50
58	High performance polymer actuator based on carbon nanotube-ionic liquid gel: Effect of ionic liquid. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 156, 539-545	8.5	63
57	Effect of Organic Additives on Electrochemical Properties of Li Anode in Room Temperature Ionic Liquid. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, A316	3.9	45
56	Tuning of solubility and gelation ability of oligomeric electrolyte by anion exchange. <i>Polymer Journal</i> , <b>2010</b> , 42, 759-765	2.7	9
55	Charge and Discharge Property of Li/LiCoO <sub>2</sub> Cell Using Ionic Liquids Composed of N,N-Diethyl-N-Methyl-N-(2-Methoxyethyl)Ammonium and Fluorosulfonyl (Trifluoromethylsulfonyl) Amide. <i>ECS Transactions</i> , <b>2010</b> , 33, 37-42	1	7
54	New Ionic Liquids Containing Fluorosulfonyl(trifluoromethylsulfonyl)amide and 5-Phosphoniaspiro[4.4]nonan. <i>ECS Transactions</i> , <b>2010</b> , 33, 35-40	1	2
53	Interactions of perfluoroalkyltrifluoroborate anions with li ion and imidazolium cation: effects of perfluoroalkyl chain on motion of ions in ionic liquids. <i>Journal of Physical Chemistry B</i> , <b>2010</b> , 114, 11390-6	3.4	40
52	Alkoxy chains in ionic liquid anions; effect of introducing ether oxygen into perfluoroalkylborate on physical and thermal properties. <i>Chemical Communications</i> , <b>2010</b> , 46, 1730-2	5.8	37
51	Thermal Properties of Alkali (Fluorosulfonyl)(trifluoromethylsulfonyl)amides. <i>Chemistry Letters</i> , <b>2010</b> , 39, 1303-1304	1.7	19
50	Ionic liquid electrolytes based on multi-methoxyethyl substituted ammoniums and perfluorinated sulfonimides: Preparation, characterization, and properties. <i>Electrochimica Acta</i> , <b>2010</b> , 55, 7134-7144	6.7	78
49	Ionic liquids and plastic crystals based on tertiary sulfonium and bis(fluorosulfonyl)imide. <i>Electrochimica Acta</i> , <b>2010</b> , 55, 1221-1226	6.7	72
48	Ab initio study of EMIM-BF <sub>4</sub> crystal interaction with a Li (100) surface as a model for ionic liquid/Li interfaces in Li-ion batteries. <i>Journal of Chemical Physics</i> , <b>2009</b> , 131, 244705	3.9	31
47	Electrochemical properties and actuation mechanisms of actuators using carbon nanotube-ionic liquid gel. <i>Sensors and Actuators B: Chemical</i> , <b>2009</b> , 139, 624-630	8.5	83
46	Direct measurements of ionic mobility of ionic liquids using the electric field applying pulsed gradient spin-echo NMR. <i>Journal of Physical Chemistry B</i> , <b>2009</b> , 113, 8466-8	3.4	49
45	Ion Mobility of 1-Ethyl-3-methylimidazolium Tetrafluoroborate and 1-Ethyl-3-methylimidazolium Bis(trifluorosulfonyl)amide Ionic Liquids. <i>ECS Transactions</i> , <b>2009</b> , 25, 23-29	1	2
44	Hydrogels Based on Surfactant-Free Ionene Polymers with N,N'-(p-Phenylene)dibenzamide Linkages. <i>Macromolecules</i> , <b>2008</b> , 41, 8841-8846	5.5	32
43	Ab initio study of EMIM-BF <sub>4</sub> molecule adsorption on Li surfaces as a model for ionic liquid/Li interfaces in Li-ion batteries. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	37

42	Low Melting and Electrochemically Stable Ionic Liquids Based on Asymmetric Fluorosulfonyl(trifluoromethylsulfonyl)amide. <i>Chemistry Letters</i> , <b>2008</b> , 37, 1020-1021	1.7	59
41	Electrochemical desorption of a self-assembled monolayer of alkanethiol in ionic liquids. <i>Journal of Electroanalytical Chemistry</i> , <b>2008</b> , 615, 110-116	4.1	19
40	Oligomeric electrolyte as a multifunctional gelator. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 11039-41	16.4	105
39	Lithium-doped, organic ionic plastic crystal electrolytes exhibiting high ambient-temperature conductivities. <i>Electrochemistry Communications</i> , <b>2007</b> , 9, 1017-1022	5.1	62
38	Application of room temperature ionic liquids to Li batteries. <i>Electrochimica Acta</i> , <b>2007</b> , 53, 1048-1054	6.7	198
37	Application of nonflammable electrolyte with room temperature ionic liquids (RTILs) for lithium-ion cells. <i>Journal of Power Sources</i> , <b>2007</b> , 174, 1021-1026	8.9	133
36	Cyclic quaternary ammonium ionic liquids with perfluoroalkyltrifluoroborates: synthesis, characterization, and properties. <i>Chemistry - A European Journal</i> , <b>2006</b> , 12, 2196-212	4.8	299
35	Fast cycling of Li/LiCoO <sub>2</sub> cell with low-viscosity ionic liquids based on bis(fluorosulfonyl)imide [FSI]. <i>Journal of Power Sources</i> , <b>2006</b> , 160, 1308-1313	8.9	480
34	Photoelectrochemistry of p-type Cu <sub>2</sub> O semiconductor electrode in ionic liquid. <i>Research on Chemical Intermediates</i> , <b>2006</b> , 32, 575-583	2.8	11
33	Effective scCO <sub>2</sub> -ionic Liquid Reaction System Based on Symmetric Aliphatic Ammonium Salts for the Rapid CO <sub>2</sub> Fixation with Aziridine to 2-Oxazolidinone. <i>Chemistry Letters</i> , <b>2005</b> , 34, 60-61	1.7	44
32	Discharge/charge properties of Li/LiCoO <sub>2</sub> cell using room temperature ionic liquids (RTILs) based on quaternary ammonium cation. Effect of the structure. <i>Journal of Power Sources</i> , <b>2005</b> , 146, 693-697	8.9	166
31	Preparation of room temperature ionic liquids based on aliphatic onium cations and asymmetric amide anions and their electrochemical properties as a lithium battery electrolyte. <i>Journal of Power Sources</i> , <b>2005</b> , 146, 45-50	8.9	372
30	Structure and properties of new ionic liquids based on alkyl- and alkenyltrifluoroborates. <i>ChemPhysChem</i> , <b>2005</b> , 6, 1324-32	3.2	100
29	Application of Ionic Liquids to Li Batteries <b>2005</b> , 171-186		
28	Application of Ionic Liquids to Photoelectrochemical Cells <b>2005</b> , 187-198		1
27	Electrochemical Windows of Room-Temperature Ionic Liquids <b>2005</b> , 35-54		21
26	Low-melting, low-viscous, hydrophobic ionic liquids: aliphatic quaternary ammonium salts with perfluoroalkyltrifluoroborates. <i>Chemistry - A European Journal</i> , <b>2005</b> , 11, 752-66	4.8	323
25	EQCM study of Room Temperature Ionic Liquids Based on Perfluoroethyltrifluoroborate with and without Li[BF <sub>4</sub> ]. <i>Electrochemistry</i> , <b>2005</b> , 73, 633-635	1.2	13

24	Low-melting, low-viscous, hydrophobic ionic liquids: 1-alkyl(alkyl ether)-3-methylimidazolium perfluoroalkyltrifluoroborate. <i>Chemistry - A European Journal</i> , <b>2004</b> , 10, 6581-91	4.8	235
23	Low-melting, Low-viscous, Hydrophobic Ionic Liquids:N-Alkyl(alkyl ether)-N-methylpyrrolidinium Perfluoroethyltrifluoroborate. <i>Chemistry Letters</i> , <b>2004</b> , 33, 1636-1637	1.7	50
22	Low-Viscous, Low-Melting, Hydrophobic Ionic Liquids: 1-Alkyl-3-methylimidazolium Trifluoromethyltrifluoroborate. <i>Chemistry Letters</i> , <b>2004</b> , 33, 680-681	1.7	37
21	A New Class of Hydrophobic Ionic Liquids: Trialkyl(2-methoxyethyl)ammonium Perfluoroethyltrifluoroborate. <i>Chemistry Letters</i> , <b>2004</b> , 33, 886-887	1.7	47
20	Physicochemical Properties of 1,3-Dialkylimidazolium Fluorohydrogenate Room-Temperature Molten Salts. <i>Journal of the Electrochemical Society</i> , <b>2003</b> , 150, D195	3.9	129
19	Effect of Ionic Additives on the Limiting Cathodic Potential of EMI-Based Room Temperature Ionic Liquids. <i>Electrochemistry</i> , <b>2003</b> , 71, 1058-1060	1.2	49
18	N-Methyl-N-propylpiperidinium bis(trifluoromethanesulfonyl)imide (PP13TFSI) [novel electrolyte base for Li battery. <i>Electrochemistry Communications</i> , <b>2003</b> , 5, 594-598	5.1	659
17	Physical and Electrochemical Properties of Room Temperature Molten Salt Based on Aliphatic Onium Cations and Asymmetric Amide Anion. <i>ECS Proceedings Volumes</i> , <b>2002</b> , 2002-19, 1057-1065		4
16	Room temperature ionic liquids based on small aliphatic ammonium cations and asymmetric amide anions. <i>Chemical Communications</i> , <b>2002</b> , 1726-7	5.8	131
15	The structures of alkylimidazolium fluorohydrogenate molten salts studied by high-energy X-ray diffraction. <i>Journal of Non-Crystalline Solids</i> , <b>2002</b> , 312-314, 414-418	3.9	31
14	Influence of the Iodine Content on the Photocurrent in Dye-sensitized Solar Cells using Liquid Polyiodide. <i>Electrochemistry</i> , <b>2002</b> , 70, 446-448	1.2	9
13	?????????????????????. <i>Electrochemistry</i> , <b>2002</b> , 70, 190-194	1.2	15
12	Room Temperature Molten Salts Based on Tetraalkylammonium Cations and Bis(trifluoromethylsulfonyl)imide. <i>Chemistry Letters</i> , <b>2001</b> , 30, 182-183	1.7	64
11	The Application of Room Temperature Molten Salt with Low Viscosity to the Electrolyte for Dye-Sensitized Solar Cell. <i>Chemistry Letters</i> , <b>2001</b> , 30, 26-27	1.7	176
10	Room Temperature Molten Salts Based on Trialkylsulfonium Cations and Bis(trifluoromethylsulfonyl)imide. <i>Chemistry Letters</i> , <b>2000</b> , 29, 1430-1431	1.7	98
9	Highly Conductive Room Temperature Molten Salts Based on Small Trimethylalkylammonium Cations and Bis(trifluoromethylsulfonyl)imide. <i>Chemistry Letters</i> , <b>2000</b> , 29, 922-923	1.7	285
8	Characterization of Covalently Immobilized Q-CdS Particles on Au(111) by Scanning Tunneling Microscopy and Tunneling Spectroscopy with High Reproducibility. <i>Langmuir</i> , <b>1997</b> , 13, 742-746	4	42
7	Effect of solvents on photocatalytic reduction of carbon dioxide using TiO <sub>2</sub> nanocrystal photocatalyst embedded in SiO <sub>2</sub> matrices. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>1997</b> , 108, 187-192	4.7	73

6	Preparation of Monodisperse CdS Nanocrystals by Size Selective Photocorrosion. <i>The Journal of Physical Chemistry</i> , <b>1996</b> , 100, 13781-13785	121
5	Narrowing Size Distribution of CdS Nanocrystals by Size Selective Photocorrosion. <i>Chemistry Letters</i> , <b>1995</b> , 24, 595-596	1.7 15
4	Photoinduced Reduction of Viologens on Size-Separated CdS Nanocrystals. <i>The Journal of Physical Chemistry</i> , <b>1994</b> , 98, 11549-11556	42
3	Glucose sensitivity of poly(pyrrole) films containing immobilized glucose dehydrogenase, nicotinamide adenine dinucleotide, and 1,10-phenanthrolinequinonesulphonate ions. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , <b>1991</b> , 319, 185-194	30
2	Li Batteries 203-220	
1	Photoelectrochemical Cells 221-234	6