

James H Davis

List of Publications by Citations

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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.

57
papers

7,206
citations

23
h-index

58
g-index

58
ext. papers

7,682
ext. citations

5.6
avg, IF

5.85
L-index

#	Paper	IF	Citations
57	CO(2) capture by a task-specific ionic liquid. <i>Journal of the American Chemical Society</i> , 2002 , 124, 926-7	16.4	1843
56	Energy applications of ionic liquids. <i>Energy and Environmental Science</i> , 2014 , 7, 232-250	35.4	1244
55	Novel Brønsted acidic ionic liquids and their use as dual solvent-catalysts. <i>Journal of the American Chemical Society</i> , 2002 , 124, 5962-3	16.4	1046
54	Task-Specific Ionic Liquids. <i>Chemistry Letters</i> , 2004 , 33, 1072-1077	1.7	874
53	The third evolution of ionic liquids: active pharmaceutical ingredients. <i>New Journal of Chemistry</i> , 2007 , 31, 1429	3.6	665
52	From curiosities to commodities: ionic liquids begin the transition. <i>Chemical Communications</i> , 2003 , 1209-1212	5.12	199
51	Reversible CO ₂ Capture by Unexpected Plastic-, Resin-, and Gel-like Ionic Soft Materials Discovered during the Combi-Click Generation of a TSIL Library. <i>Chemistry of Materials</i> , 2007 , 19, 3581-3583	9.6	142
50	Sweet success: Ionic liquids derived from non-nutritive sweeteners. <i>Chemical Communications</i> , 2004 , 630-1	5.8	134
49	Novel organic ionic liquids (OILs) incorporating cations derived from the antifungal drug miconazole. <i>Tetrahedron Letters</i> , 1998 , 39, 8955-8958	2	96
48	Simultaneous membrane transport of two active pharmaceutical ingredients by charge assisted hydrogen bond complex formation. <i>Chemical Science</i> , 2014 , 5, 3449	9.4	85
47	Ionic liquids of superior thermal stability. <i>Chemical Communications</i> , 2013 , 49, 7590-2	5.8	81
46	Impact of water on CO ₂ capture by amino acid ionic liquids. <i>Environmental Chemistry Letters</i> , 2014 , 12, 201-208	13.3	74
45	Supported Ionic Liquid Membranes and Facilitated Ionic Liquid Membranes. <i>ACS Symposium Series</i> , 2002 , 69-87	0.4	69
44	The fluid-mosaic model, homeoviscous adaptation, and ionic liquids: dramatic lowering of the melting point by side-chain unsaturation. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 2755-8	16.4	67
43	Building a bridge between aprotic and protic ionic liquids. <i>RSC Advances</i> , 2013 , 3, 337-340	3.7	35
42	Exploiting isolobal relationships to create new ionic liquids: novel room-temperature ionic liquids based upon (N-alkylimidazole)(amine)BH ₂ ⁺ "boronium" ions. <i>Chemical Communications</i> , 2005 , 3679-81	5.8	35
41	Stable Cycling of Lithium Batteries Using Novel Boronium-Cation-Based Ionic Liquid Electrolytes. <i>Chemistry of Materials</i> , 2010 , 22, 1038-1045	9.6	34

40	Enhanced stabilization of the Tobacco mosaic virus using protic ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 10119-21	3.6	31
39	Do ion tethered functional groups affect IL solvent properties? The case of sulfoxides and sulfones. <i>Chemical Communications</i> , 2006 , 646-8	5.8	31
38	Making good on a promise: ionic liquids with genuinely high degrees of thermal stability. <i>Chemical Communications</i> , 2018 , 54, 5019-5031	5.8	27
37	Synthesis of new lipid-inspired ionic liquids by thiol-ene chemistry: profound solvent effect on reaction pathway. <i>Chemistry - A European Journal</i> , 2014 , 20, 7576-80	4.8	25
36	Lipidic ionic liquid stationary phases for the separation of aliphatic hydrocarbons by comprehensive two-dimensional gas chromatography. <i>Journal of Chromatography A</i> , 2017 , 1481, 127-136	4.5	23
35	Thermally stable bis(trifluoromethylsulfonyl)imide salts and their mixtures. <i>New Journal of Chemistry</i> , 2016 , 40, 7157-7161	3.6	23
34	The effect of the sulfur position on the melting points of lipidic 1-methyl-3-thiaalkylimidazolium ionic liquids. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 10232-9	3.4	20
33	Ethane and Ethylene Solubility in an Imidazolium-Based Lipidic Ionic Liquid. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 5165-5171	3.9	19
32	Synthesis and thermophysical properties of ionic liquids: cyclopropyl moieties versus olefins as Tm-reducing elements in lipid-inspired ionic liquids. <i>Tetrahedron Letters</i> , 2013 , 54, 12-14	2	19
31	Thermally robust: triarylsulfonium ionic liquids stable in air for 90 days at 300 °C. <i>RSC Advances</i> , 2017 , 7, 7623-7630	3.7	19
30	Functionalized ionic liquids with highly polar polyhydroxylated appendages and their rapid synthesis via thiol-ene click chemistry. <i>Tetrahedron Letters</i> , 2011 , 52, 5173-5175	2	19
29	Working Salts: Syntheses and Uses of Ionic Liquids Containing Functionalized Ions. <i>ACS Symposium Series</i> , 2002 , 247-258	0.4	17
28	An evaluation of anion suitability for use in ionic liquids with long-term, high-temperature thermal stability. <i>New Journal of Chemistry</i> , 2017 , 41, 7844-7848	3.6	16
27	Ultra-high thermal stability perarylated ionic liquids as gas chromatographic stationary phases for the selective separation of polyaromatic hydrocarbons and polychlorinated biphenyls. <i>Journal of Chromatography A</i> , 2019 , 1604, 460466	4.5	14
26	Tuning the melting point of selected ionic liquids through adjustment of the cation's dipole moment. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 12301-12311	3.6	14
25	The effect of structural modifications on the thermal stability, melting points and ion interactions for a series of tetraaryl-phosphonium-based mesothermal ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 31560-31571	3.6	14
24	Task-Specific Ionic Liquids for Separations of Petrochemical Relevance: Reactive Capture of CO ₂ Using Amine Incorporating Ions. <i>ACS Symposium Series</i> , 2005 , 49-56	0.4	14
23	Azolidene Carbenes Derived from Biologically Relevant Molecules.(1) Synthesis and Characterization of Iridium Complexes of Imidazolidene Ligands Based upon the Antifungal Drugs Econazole and Miconazole. <i>Inorganic Chemistry</i> , 1998 , 37, 5412-5413	5.1	13

22	Synthesis, thermal stability, and computed bond dissociation energies of tetraarylphosphonium-based mesothermal ionic liquids bearing a quinoline ring system. <i>Tetrahedron Letters</i> , 2017 , 58, 4628-4631	2	12
21	Structure and dynamics of the drug-bound bacterial transporter EmrE in lipid bilayers. <i>Nature Communications</i> , 2021 , 12, 172	17.4	12
20	Structure-based tuning of T(m) in lipid-like ionic liquids. Insights from Tf2N- salts of gene transfection agents. <i>Chemical Communications</i> , 2012 , 48, 7522-4	5.8	11
19	A simple and rapid route to novel tetra(4-thiaalkyl)ammonium bromides. <i>RSC Advances</i> , 2013 , 3, 24612	3.7	10
18	Thioether-functionalized picolinium ionic liquids: synthesis, physical properties and computational studies. <i>New Journal of Chemistry</i> , 2017 , 41, 1625-1630	3.6	9
17	Click chemistry mediated synthesis of bio-inspired phosphonyl-functionalized ionic liquids. <i>Green Chemistry</i> , 2015 , 17, 1259-1268	10	9
16	Lipid-Inspired Ionic Liquids Containing Long-Chain Appendages: Novel Class of Biomaterials with Attractive Properties and Applications. <i>ACS Symposium Series</i> , 2012 , 199-216	0.4	9
15	Solubility of CO and NO in an Imidazolium-Based Lipidic Ionic Liquid. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 10524-10530	3.4	8
14	A new building block for electroactive organic materials? Synthesis, cyclic voltammetry, single crystal X-ray structure, and DFT treatment of a unique boron-based viologen. <i>Chemical Communications</i> , 2011 , 47, 9072-4	5.8	7
13	Liquid-liquid equilibria of binary mixtures of a lipidic ionic liquid with hydrocarbons. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 2459-67	3.6	6
12	From curiosities to commodities: ionic liquids begin the transition. <i>Chemical Communications</i> , 2003 , 1209-12	5.8	6
11	Multi-ion ionic liquids and a direct, reproducible, diversity-oriented way to make them. <i>Chemical Communications</i> , 2015 , 51, 15914-6	5.8	5
10	Degradation of Chitin Utilizing Acid Functionalized Ionic Liquids Technology. <i>ACS Symposium Series</i> , 2012 , 189-198	0.4	5
9	A co-crystal of 1,10-phenanthroline with boric acid: a novel aza-aromatic complex. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2013 , 69, o1067-8		3
8	Novel boronium salt exhibits substantial antibacterial activity when compared to a commercial quaternary ammonium disinfectant. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021 , 36, 127808	2.9	3
7	Fusion and Thermal Degradation Behavior of Symmetric Sulfur-Containing Quaternary Ammonium Bromides. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 1330-5	3.4	2
6	Ionic liquids of superior thermal stability. Validation of PPh as an organic cation of impressive thermodynamic durability.. <i>RSC Advances</i> , 2020 , 10, 20521-20528	3.7	2
5	Synthesis and Properties of Lipid-Inspired Ionic Liquids 2016 , 205-223		2

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| 4 | Acoustic levitation and infrared thermography: a sound approach to studying droplet evaporation. <i>Chemical Communications</i> , 2020 , 56, 4224-4227 | 5.8 | 1 |
| 3 | Commercially Available Salts as Building Blocks for New Ionic Liquids. <i>ACS Symposium Series</i> , 2003 , 100-107 | 10.7 | 1 |
| 2 | Unorthodox crystalline drug salts via the reaction of amine-containing drugs with CO. <i>Chemical Communications</i> , 2019 , 55, 13546-13549 | 5.8 | 1 |
| 1 | Understanding liquid-liquid equilibria in binary mixtures of hydrocarbons with a thermally robust perarylphosphonium-based ionic liquid.. <i>RSC Advances</i> , 2021 , 11, 31328-31338 | 3.7 | 0 |