

# Edward W Castner Jr

## List of Publications by Year in descending order

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70  
papers

6,329  
citations

71102

41  
h-index

95266

68  
g-index

70  
all docs

70  
docs citations

70  
times ranked

4487  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spotlight on ionic liquids. <i>Journal of Chemical Physics</i> , 2010, 132, 120901.	3.0	366
2	Subpicosecond resolution studies of solvation dynamics in polar aprotic and alcohol solvents. <i>Journal of Chemical Physics</i> , 1987, 86, 1090-1097.	3.0	343
3	Ionic Liquids: Structure and Photochemical Reactions. <i>Annual Review of Physical Chemistry</i> , 2011, 62, 85-105.	10.8	310
4	Femtosecond to nanosecond solvation dynamics in pure water and inside the $\beta$ -cyclodextrin cavity. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1995, 91, 867-873.	1.7	261
5	Intermolecular Dynamics, Interactions, and Solvation in Ionic Liquids. <i>Accounts of Chemical Research</i> , 2007, 40, 1217-1227.	15.6	237
6	Fast responses from $\beta$ -relaxing ionic liquids: A comparative study of the femtosecond dynamics of triacetin, ethylene glycol, and water. <i>Journal of Chemical Physics</i> , 1993, 99, 7289-7299.	3.0	221
7	Femtosecond dynamics of hydrogen-bonding solvents. Formamide and N-methylformamide in acetonitrile, DMF, and water. <i>Journal of Chemical Physics</i> , 1993, 99, 113-125.	3.0	194
8	Ultrafast Structural Rearrangements in the MLCT Excited State for Copper(I)bis-Phenanthrolines in Solution. <i>Journal of the American Chemical Society</i> , 2007, 129, 2147-2160.	13.7	193
9	Solvent as Electron Donor: Donor/Acceptor Electronic Coupling Is a Dynamical Variable. <i>Journal of Physical Chemistry A</i> , 2000, 104, 2869-2885.	2.5	173
10	Why Are Viscosities Lower for Ionic Liquids with $\beta$ -CH <sub>2</sub> Si(CH <sub>3</sub> ) <sub>3</sub> vs $\beta$ -CH <sub>2</sub> C(CH <sub>3</sub> ) <sub>3</sub> Substitutions on the Imidazolium Cations?. <i>Journal of Physical Chemistry B</i> , 2005, 109, 21576-21585.	2.6	171
11	Temperature-dependent structure of ionic liquids: X-ray scattering and simulations. <i>Faraday Discussions</i> , 2012, 154, 133-143.	3.2	171
12	Fluorescence Probing of Temperature-Dependent Dynamics and Friction in Ionic Liquid Local Environments. <i>Journal of Physical Chemistry B</i> , 2007, 111, 4963-4977.	2.6	166
13	Ultrafast dynamics of pyrrolidinium cation ionic liquids. <i>Journal of Chemical Physics</i> , 2005, 122, 184512.	3.0	160
14	Time-Dependent Density Functional Theory Investigation of the Ground and Excited States of Coumarins 102, 152, 153, and 343. <i>Journal of Physical Chemistry A</i> , 2002, 106, 12117-12123.	2.5	158
15	Theoretical Investigation of the Ground and Excited States of Coumarin 151 and Coumarin 120. <i>Journal of Physical Chemistry A</i> , 2002, 106, 9294-9305.	2.5	156
16	The Physical Chemistry of Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2007, 111, 4639-4640.	2.6	155
17	Temperature-dependent structure of methyltributylammonium bis(trifluoromethylsulfonyl)amide: X ray scattering and simulations. <i>Journal of Chemical Physics</i> , 2011, 134, 064501.	3.0	139
18	Physical Properties and Intermolecular Dynamics of an Ionic Liquid Compared with Its Isoelectronic Neutral Binary Solution. <i>Journal of Physical Chemistry A</i> , 2005, 109, 9388-9392.	2.5	136

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19	How Does the Ionic Liquid Organizational Landscape Change when Nonpolar Cationic Alkyl Groups Are Replaced by Polar Isoelectronic Diethers?. Journal of Physical Chemistry B, 2013, 117, 1130-1135.	2.6	134
20	Communication: X-ray scattering from ionic liquids with pyrrolidinium cations. Journal of Chemical Physics, 2011, 134, 121101.	3.0	127
21	Intermolecular Dynamics of Substituted Benzene and Cyclohexane Liquids, Studied by Femtosecond Nonlinear-Optical Polarization Spectroscopy. The Journal of Physical Chemistry, 1996, 100, 3330-3343.	2.9	126
22	Fluorescence Probing of Interior, Interfacial, and Exterior Regions in Solution Aggregates of Poly(ethylene oxide)-Poly(propylene oxide)-Poly(ethylene oxide) Triblock Copolymers. Langmuir, 2005, 21, 1745-1752.	3.5	121
23	Structure of 1-Alkyl-1-methylpyrrolidinium Bis(trifluoromethylsulfonyl)amide Ionic Liquids with Linear, Branched, and Cyclic Alkyl Groups. Journal of Physical Chemistry B, 2013, 117, 15328-15337.	2.6	121
24	Comparing intermediate range order for alkyl- vs. ether-substituted cations in ionic liquids. Chemical Communications, 2012, 48, 4959.	4.1	116
25	The dynamics of polar solvation: Inhomogeneous dielectric continuum models. Journal of Chemical Physics, 1988, 89, 3519-3534.	3.0	115
26	Intermolecular Interactions and Dynamics of Room Temperature Ionic Liquids That Have Silyl- and Siloxy-Substituted Imidazolium Cations. Journal of Physical Chemistry B, 2007, 111, 4819-4829.	2.6	109
27	Nuclear Magnetic Resonance Study of the Dynamics of Imidazolium Ionic Liquids with $\text{CH}_2\text{Si}(\text{CH}_3)_3$ vs $\text{CH}_2\text{C}(\text{CH}_3)_3$ Substituents. Journal of Physical Chemistry B, 2007, 111, 4885-4893.	2.6	101
28	Aqueous dimethyl sulfoxide solutions: Inter- and intra-molecular dynamics. Journal of Chemical Physics, 2002, 116, 4643-4654.	3.0	96
29	Microviscosity in Multiple Regions of Complex Aqueous Solutions of Poly(ethylene Terephthalate). Journal of Physical Chemistry B, 2002, 106, 22273-22284.	2.6	96
30	Dynamic Fluorescence Probing of the Local Environments within Amphiphilic Starlike Macromolecules. Journal of Physical Chemistry B, 2002, 106, 7463-7468.	2.6	85
31	Solvation in highly nonideal solutions: A study of aqueous 1-propanol using the coumarin 153 probe. Journal of Chemical Physics, 2000, 112, 2367-2376.	3.0	81
32	A Molecular Dynamics Study of Aggregation Phenomena in Aqueous n-Propanol. Journal of Physical Chemistry B, 2004, 108, 7389-7401.	2.6	81
33	Ultrafast Dynamics in Aqueous Polyacrylamide Solutions. Journal of the American Chemical Society, 2001, 123, 12877-12885.	13.7	78
34	Influence of non-Debye relaxation and of molecular shape on the time dependence of the Stokes shift in polar media. Chemical Physics Letters, 1988, 143, 270-276.	2.6	64
35	Molecular Recognition and Electron Transfer Across a Hydrogen Bonding Interface. Journal of the American Chemical Society, 2000, 122, 1233-1234.	13.7	63
36	Dipolar solvation dynamics. Faraday Discussions of the Chemical Society, 1988, 85, 199.	2.2	55

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37	Structure of cyano-anion ionic liquids: X-ray scattering and simulations. <i>Journal of Chemical Physics</i> , 2016, 145, 024503.	3.0	54
38	Differences in Ion Interactions for Isoelectronic Ionic Liquid Homologs. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1477-1483.	4.6	47
39	A Theoretical Investigation of the Shape and Hydration Properties of Aqueous Urea: Evidence for Nonplanar Urea Geometry. <i>Journal of Physical Chemistry B</i> , 2004, 108, 17583-17590.	2.6	46
40	Structures of Ionic Liquids Having Both Anionic and Cationic Octyl Tails: Lamellar Vacuum Interface vs Sponge-Like Bulk Order. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3785-3790.	4.6	46
41	Ionic liquids and solids with paramagnetic anions. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 8919.	2.8	44
42	Interactions between water and 1-butyl-1-methylpyrrolidinium ionic liquids. <i>Journal of Chemical Physics</i> , 2015, 143, 064503.	3.0	40
43	Reductive quenching of the emission of trans-dioxo(1,4,8,11-tetramethyl-1,4,8,11-tetraazacyclotetradecane)osmium(VI) in water. <i>Inorganic Chemistry</i> , 1993, 32, 4200-4208.	4.0	39
44	Ionic liquid ultrathin films at the surface of Cu(100) and Au(111). <i>Journal of Chemical Physics</i> , 2017, 146, 054704.	3.0	35
45	Connecting Structural and Transport Properties of Ionic Liquids with Cationic Oligoether Chains. <i>Journal of the Electrochemical Society</i> , 2017, 164, H5247-H5262.	2.9	33
46	A Comparison of Electron-Transfer Dynamics in Ionic Liquids and Neutral Solvents. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5197-5208.	3.1	31
47	Photoinduced Bimolecular Electron Transfer in Ionic Liquids. <i>Journal of the American Chemical Society</i> , 2017, 139, 14568-14585.	13.7	30
48	Communication: Unusual structure and transport in ionic liquid-hexane mixtures. <i>Journal of Chemical Physics</i> , 2015, 142, 121101.	3.0	29
49	Ionic Liquidâ€“Solute Interactions Studied by 2D NOE NMR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9225-9235.	2.6	29
50	Structure and dynamics of ionic liquids: Trimethylsilylpropyl-substituted cations and bis(sulfonyl)amide anions. <i>Journal of Chemical Physics</i> , 2016, 145, 244506.	3.0	27
51	Microscopic Structural and Dynamic Features in Triphasic Room Temperature Ionic Liquids. <i>Frontiers in Chemistry</i> , 2019, 7, 285.	3.6	25
52	Intriguing transport dynamics of ethylammonium nitrateâ€“acetonitrile binary mixtures arising from nano-inhomogeneity. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 27212-27220.	2.8	24
53	Structural analysis of zwitterionic liquids vs. homologous ionic liquids. <i>Journal of Chemical Physics</i> , 2018, 148, 193807.	3.0	24
54	Local Polarity and Microviscosity in the Hydrophobic Cores of Amphiphilic Star-like and Scorpion-like Macromolecules. <i>Macromolecules</i> , 2007, 40, 3739-3748.	4.8	21

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55	Photoinduced Bimolecular Electron Transfer from Cyano Anions in Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2015, 119, 14790-14799.	2.6	21
56	Structure of ionic liquids with cationic silicon-substitutions. <i>Journal of Chemical Physics</i> , 2016, 145, .	3.0	21
57	On the generalized continuum model of dipolar solvation dynamics. <i>Journal of Molecular Structure</i> , 1989, 194, 171-181.	3.6	20
58	Interfacial Electron Transfer Dynamics of Photosensitized Zinc Oxide Nanoclusters. <i>ACS Symposium Series</i> , 1997, , 221-238.	0.5	20
59	Structural analysis of ionic liquids with symmetric and asymmetric fluorinated anions. <i>Journal of Chemical Physics</i> , 2019, 151, 074504.	3.0	20
60	Conformational Analysis of the Electron-Transfer Kinetics across Oligoproline Peptides Using N,N-Dimethyl-1,4-benzenediamine Donors and Pyrene-1-sulfonyl Acceptors. <i>Journal of Physical Chemistry B</i> , 2007, 111, 6878-6886.	2.6	19
61	Structure and dynamics of propylammonium nitrate-acetonitrile mixtures: An intricate multi-scale system probed with experimental and theoretical techniques. <i>Journal of Chemical Physics</i> , 2018, 148, 134507.	3.0	18
62	Biophysical characterization of natural and mutant fluorescent proteins cloned from zooxanthellate corals. <i>FEBS Letters</i> , 2004, 570, 175-183.	2.8	15
63	Ionic Liquids with Symmetric Diether Tails: Bulk and Vacuum-Liquid Interfacial Structures. <i>Journal of Physical Chemistry B</i> , 2017, 121, 174-179.	2.6	15
64	Photoinduced Bimolecular Electron Transfer in Ionic Liquids: Cationic Electron Donors. <i>Journal of Physical Chemistry B</i> , 2018, 122, 2379-2388.	2.6	15
65	Photoluminescence Decay Dynamics and Mechanism of Energy Transfer in Undoped and Mn <sup>2+</sup> Doped ZnSe Nanoparticles. <i>Journal of Nanoscience and Nanotechnology</i> , 2005, 5, 1492-1497.	0.9	14
66	Electron-Transfer Dynamics for a Donor-Bridge-Acceptor Complex in Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2015, 119, 11336-11345.	2.6	13
67	Liquid Structure of CO <sub>2</sub> in Reactive Aprotic Heterocyclic Anion Ionic Liquids from X-ray Scattering and Molecular Dynamics. <i>Journal of Physical Chemistry B</i> , 2016, 120, 11951-11960.	2.6	12
68	ROAMing in mutable voids: Polymer free volumes from wobbling vibrational probes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 15385-15387.	7.1	3
69	Spectroscopic Studies of Rilpivirine (TMC278/R278474) in Complex with HIV-1 Reverse Transcriptase. <i>FASEB Journal</i> , 2007, 21, A630.	0.5	0
70	Mixtures of octanol and an ionic liquid: Structure and transport. <i>Journal of Chemical Physics</i> , 2020, 153, 214501.	3.0	0