

# Richard C Remsing

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2836782/publications.pdf>

Version: 2024-02-01

54  
papers

3,976  
citations

279487

23  
h-index

161609

54  
g-index

54  
all docs

54  
docs citations

54  
times ranked

5125  
citing authors

#	ARTICLE	IF	CITATIONS
1	Can ionic liquids dissolve wood? Processing and analysis of lignocellulosic materials with 1-n-butyl-3-methylimidazolium chloride. <i>Green Chemistry</i> , 2007, 9, 63-69.	4.6	752
2	Accurate first-principles structures and energies of diversely bonded systems from an efficient density functional. <i>Nature Chemistry</i> , 2016, 8, 831-836.	6.6	698
3	Mechanism of cellulose dissolution in the ionic liquid 1-n-butyl-3-methylimidazolium chloride: a $^{13}\text{C}$ and $^{35/37}\text{Cl}$ NMR relaxation study on model systems. <i>Chemical Communications</i> , 2006, , 1271.	2.2	613
4	Ab initio theory and modeling of water. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10846-10851.	3.3	340
5	Solvation of Carbohydrates in $N,N$ -Dialkylimidazolium Ionic Liquids: A Multinuclear NMR Spectroscopy Study. <i>Journal of Physical Chemistry B</i> , 2008, 112, 11071-11078.	1.2	185
6	Effect of Interlayer Spacing on the Activity of Layered Manganese Oxide Bilayer Catalysts for the Oxygen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2017, 139, 1863-1870.	6.6	144
7	Nickel Confined in the Interlayer Region of Birnessite: an Active Electrocatalyst for Water Oxidation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10381-10385.	7.2	112
8	Pathways to dewetting in hydrophobic confinement. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 8181-8186.	3.3	95
9	Solvation and Aggregation of $N,N$ -Dialkylimidazolium Ionic Liquids: A Multinuclear NMR Spectroscopy and Molecular Dynamics Simulation Study. <i>Journal of Physical Chemistry B</i> , 2008, 112, 7363-7369.	1.2	89
10	Hydrogen Bonds in Ionic Liquids Revisited: $^{35/37}\text{Cl}$ NMR Studies of Deuterium Isotope Effects in 1-n-Butyl-3-Methylimidazolium Chloride. <i>Journal of Physical Chemistry B</i> , 2007, 111, 11619-11621.	1.2	83
11	The Role of Broken Symmetry in Solvation of a Spherical Cavity in Classical and Quantum Water Models. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2767-2774.	2.1	71
12	Frustrated Solvation Structures Can Enhance Electron Transfer Rates. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4804-4808.	2.1	67
13	Dissecting Hydrophobic Hydration and Association. <i>Journal of Physical Chemistry B</i> , 2013, 117, 15479-15491.	1.2	51
14	Deconstructing Classical Water Models at Interfaces and in Bulk. <i>Journal of Statistical Physics</i> , 2011, 145, 313-334.	0.5	44
15	Long-ranged contributions to solvation free energies from theory and short-ranged models. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2819-2826.	3.3	44
16	Self-consistent determination of long-range electrostatics in neural network potentials. <i>Nature Communications</i> , 2022, 13, 1572.	5.8	38
17	Sparse Sampling of Water Density Fluctuations in Interfacial Environments. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 706-713.	2.3	36
18	Comment on $^{13}\text{C}$ NMR spectroscopic studies of cellobiose solvation in EmimAc aimed to understand the dissolution mechanism of cellulose in ionic liquids by J. Zhang, H. Zhang, J. Wu, J. Zhang, J. He and J. Xiang, <i>Phys. Chem. Chem. Phys.</i> , 2010, 12, 1941. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14827.	1.3	32

#	ARTICLE	IF	CITATIONS
19	Nickel Confined in the Interlayer Region of Birnessite: an Active Electrocatalyst for Water Oxidation. <i>Angewandte Chemie</i> , 2016, 128, 10537-10541.	1.6	28
20	Water Lone Pair Delocalization in Classical and Quantum Descriptions of the Hydration of Model Ions. <i>Journal of Physical Chemistry B</i> , 2018, 122, 3519-3527.	1.2	27
21	A Free-Standing Molecular Spin-Charge Converter for Ubiquitous Magnetic Energy Harvesting and Sensing. <i>Advanced Materials</i> , 2017, 29, 1605150.	11.1	26
22	Dependence of the structure and dynamics of liquid silicon on the choice of density functional approximation. <i>Physical Review B</i> , 2017, 96, .	1.1	26
23	Protein Hydration Thermodynamics: The Influence of Flexibility and Salt on Hydrophobin II Hydration. <i>Journal of Physical Chemistry B</i> , 2018, 122, 3635-3646.	1.2	24
24	Short solvent model for ion correlations and hydrophobic association. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 1293-1302.	3.3	23
25	Hydrophobicity Scaling of Aqueous Interfaces by an Electrostatic Mapping. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9268-9277.	1.2	22
26	Water density fluctuations relevant to hydrophobic hydration are unaltered by attractions. <i>Journal of Chemical Physics</i> , 2015, 142, 024502.	1.2	22
27	Role of Local Response in Ion Solvation: Born Theory and Beyond. <i>Journal of Physical Chemistry B</i> , 2016, 120, 6238-6249.	1.2	21
28	Liquid-liquid Phase Transitions in Silicon. <i>Physical Review Letters</i> , 2020, 125, 075702.	2.9	21
29	Light-induced dilation in nanosheets of charge-transfer complexes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3776-3781.	3.3	20
30	Sodium Halide Adsorption and Water Structure at the $\gamma$ -Alumina(0001)/Water Interface. <i>Journal of Physical Chemistry C</i> , 2019, 123, 15618-15628.	1.5	19
31	A new perspective on lone pair dynamics in halide perovskites. <i>APL Materials</i> , 2020, 8, .	2.2	16
32	Effect of water frustration on water oxidation catalysis in the nanoconfined interlayers of layered manganese oxides birnessite and buserite. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6924-6932.	5.2	15
33	Capillary evaporation of the ionic liquid [EMIM][BF <sub>4</sub> ] in nanoscale solvophobic confinement. <i>Journal of Chemical Physics</i> , 2018, 148, 193810.	1.2	14
34	Solvation dynamics in water confined within layered manganese dioxide. <i>Chemical Physics Letters</i> , 2017, 683, 478-482.	1.2	13
35	Uptake, Trapping, and Release of Organometallic Cations by Redox-Active Cationic Hosts. <i>Journal of the American Chemical Society</i> , 2021, 143, 16993-17003.	6.6	13
36	Characterizing Solvent Density Fluctuations in Dynamical Observation Volumes. <i>Journal of Physical Chemistry B</i> , 2019, 123, 1650-1661.	1.2	12

#	ARTICLE	IF	CITATIONS
37	The Influence of Distant Boundaries on the Solvation of Charged Particles. Journal of Statistical Physics, 2019, 175, 743-763.	0.5	12
38	Lone Pair Rotational Dynamics in Solids. Physical Review Letters, 2020, 124, 066001.	2.9	12
39	Halogen Bond Structure and Dynamics from Molecular Simulations. Journal of Physical Chemistry B, 2019, 123, 6266-6273.	1.2	10
40	Ion-dependent protein-surface interactions from intrinsic solvent response. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	10
41	Refined description of liquid and supercooled silicon from <i>ab initio</i> simulations. Physical Review B, 2018, 97, .	1.1	9
42	Intrusion and extrusion of liquids in highly confining media: bridging fundamental research to applications. Advances in Physics: X, 2022, 7, .	1.5	9
43	Effective mass path integral simulations of quasiparticles in condensed phases. Journal of Chemical Physics, 2020, 153, 121104.	1.2	8
44	Bonding in the metallic molecular solid $\pm$ -Gallium. Molecular Physics, 2018, 116, 3372-3379.	0.8	7
45	Playing the long game wins the cohesion-adhesion rivalry. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23874-23876.	3.3	7
46	Response Theory for Static and Dynamic Solvation of Ionic and Dipolar Solutes in Water. Journal of Statistical Physics, 2020, 180, 721-738.	0.5	6
47	Exponential Scaling of Water Exchange Rates with Ion Interaction Strength from the Perspective of Dynamic Facilitation Theory. Journal of Physical Chemistry A, 2019, 123, 1077-1084.	1.1	5
48	How Flexibility of the Nanoscale Solvophobic Confining Material Promotes Capillary Evaporation of Ionic Liquids. Journal of Physical Chemistry C, 2020, 124, 4899-4906.	1.5	5
49	Molecular Simulation of Covalent Bond Dynamics in Liquid Silicon. Journal of Physical Chemistry B, 2020, 124, 3180-3185.	1.2	5
50	Alchemical free energy calculations and umbrella sampling with local molecular field theory. Journal of Theoretical and Computational Chemistry, 2018, 17, 1840003.	1.8	4
51	Solvation of Carbohydrates in 1,3-Dialkylimidazolium Ionic Liquids: Insights from Multinuclear NMR Spectroscopy and Molecular Dynamics Simulations. ACS Symposium Series, 2010, , 75-91.	0.5	3
52	Intercalation-deintercalation of water-in-salt electrolytes in nanoscale hydrophobic confinement. Nanoscale, 2021, 13, 4195-4205.	2.8	3
53	Distributed charge models of liquid methane and ethane for dielectric effects and solvation. Molecular Physics, 2021, 119, .	0.8	3
54	Thermal Ripples in Model Molybdenum Disulfide Monolayers. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 152-154.	0.6	2