Richard C Remsing

List of Publications by Year
in descending order

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	Self-consistent determination of long-range electrostatics in neural network potentials. Nature Communications, 2022, 13, 1572.	5.8	38
2	Intrusion and extrusion of liquids in highly confining media: bridging fundamental research to applications. Advances in Physics: X, 2022, 7, .	1.5	9
3	Intercalationâ€“deintercalation of water-in-salt electrolytes in nanoscale hydrophobic confinement. Nanoscale, 2021, 13, 4195-4205.	2.8	3
4	Effect of water frustration on water oxidation catalysis in the nanoconfined interlayers of layered manganese oxides birnessite and buserite. Journal of Materials Chemistry A, 2021, 9, 6924-6932.	5.2	15
5	Distributed charge models of liquid methane and ethane for dielectric effects and solvation. Molecular Physics, 2021, 119, .	0.8	3
6	Ion-dependent proteinâ€“surface interactions from intrinsic solvent response. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	10
7	Uptake, Trapping, and Release of Organometallic Cations by Redox-Active Cationic Hosts. Journal of the American Chemical Society, 2021, 143, 16993-17003.	6.6	13
8	Short solvent model for ion correlations and hydrophobic association. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1293-1302.	3.3	23
9	Liquid-liquid Phase Transitions in Silicon. Physical Review Letters, 2020, 125, 075702.	2.9	21
10	Effective mass path integral simulations of quasiparticles in condensed phases. Journal of Chemical Physics, 2020, 153, 121104.	1.2	8
11	A new perspective on lone pair dynamics in halide perovskites. APL Materials, 2020, 8, .	2.2	16
12	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
13	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
14	Lone Pair Rotational Dynamics in Solids. Physical Review Letters, 2020, 124, 066001.	2.9	12
15	Molecular Simulation of Covalent Bond Dynamics in Liquid Silicon. Journal of Physical Chemistry B, 2020, 124, 3180-3185.	1.2	5
16	Halogen Bond Structure and Dynamics from Molecular Simulations. Journal of Physical Chemistry B, 2019, 123, 6266-6273.	1.2	10
17	Characterizing Solvent Density Fluctuations in Dynamical Observation Volumes. Journal of Physical Chemistry B, 2019, 123, 1650-1661.	1.2	12
18	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

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19	The Influence of Distant Boundaries on the Solvation of Charged Particles. Journal of Statistical Physics, 2019, 175, 743-763.	0.5	12
20	Sodium Halide Adsorption and Water Structure at the Î±-Alumina(0001)/Water Interface. Journal of Physical Chemistry C, 2019, 123, 15618-15628.	1.5	19
21	Playing the long game wins the cohesionâ€“adhesion rivalry. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23874-23876.	3.3	7
22	Protein Hydration Thermodynamics: The Influence of Flexibility and Salt on Hydrophobin II Hydration. Journal of Physical Chemistry B, 2018, 122, 3635-3646.	1.2	24
23	Refined description of liquid and supercooled silicon from ab initio simulations. Physical Review B, 2018, 97, .	1.1	9
24	Water Lone Pair Delocalization in Classical and Quantum Descriptions of the Hydration of Model Ions. Journal of Physical Chemistry B, 2018, 122, 3519-3527.	1.2	27
25	Light-induced dilation in nanosheets of charge-transfer complexes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3776-3781.	3.3	20
26	Alchemical free energy calculations and umbrella sampling with local molecular field theory. Journal of Theoretical and Computational Chemistry, 2018, 17, 1840003.	1.8	4
27	Capillary evaporation of the ionic liquid [EMIM][BF4] in nanoscale solvophobic confinement. Journal of Chemical Physics, 2018, 148, 193810.	1.2	14
28	Bonding in the metallic molecular solid Î±-Gallium. Molecular Physics, 2018, 116, 3372-3379.	0.8	7
29	Effect of Interlayer Spacing on the Activity of Layered Manganese Oxide Bilayer Catalysts for the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2017, 139, 1863-1870.	6.6	144
30	Solvation dynamics in water confined within layered manganese dioxide. Chemical Physics Letters, 2017, 683, 478-482.	1.2	13
31	A Freeâ€Standing Molecular Spinâ€“Charge Converter for Ubiquitous Magneticâ€Energy Harvesting and Sensing. Advanced Materials, 2017, 29, 1605150.	11.1	26
32	Thermal Ripples in Model Molybdenum Disulfide Monolayers. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 152-154.	0.6	2
33	Ab initio theory and modeling of water. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10846-10851.	3.3	340
34	Dependence of the structure and dynamics of liquid silicon on the choice of density functional approximation. Physical Review B, 2017, 96, .	1.1	26
35	Nickel Confined in the Interlayer Region of Birnessite: an Active Electrocatalyst for Water Oxidation. Angewandte Chemie, 2016, 128, 10537-10541.	1.6	28
36	Nickel Confined in the Interlayer Region of Birnessite: an Active Electrocatalyst for Water Oxidation. Angewandte Chemie - International Edition, 2016, 55, 10381-10385.	7.2	112

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37	Role of Local Response in Ion Solvation: Born Theory and Beyond. Journal of Physical Chemistry B, 2016, 120, 6238-6249.	1.2	21
38	Sparse Sampling of Water Density Fluctuations in Interfacial Environments. Journal of Chemical Theory and Computation, 2016, 12, 706-713.	2.3	36
39	Accurate first-principles structures and energies of diversely bonded systems from an efficient density functional. Nature Chemistry, 2016, 8, 831-836.	6.6	698
40	Long-ranged contributions to solvation free energies from theory and short-ranged models. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2819-2826.	3.3	44
41	Frustrated Solvation Structures Can Enhance Electron Transfer Rates. Journal of Physical Chemistry Letters, 2015, 6, 4804-4808.	2.1	67
42	Hydrophobicity Scaling of Aqueous Interfaces by an Electrostatic Mapping. Journal of Physical Chemistry B, 2015, 119, 9268-9277.	1.2	22
43	Pathways to dewetting in hydrophobic confinement. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8181-8186.	3.3	95
44	Water density fluctuations relevant to hydrophobic hydration are unaltered by attractions. Journal of Chemical Physics, 2015, 142, 024502.	1.2	22
45	The Role of Broken Symmetry in Solvation of a Spherical Cavity in Classical and Quantum Water Models. Journal of Physical Chemistry Letters, 2014, 5, 2767-2774.	2.1	71
46	Dissecting Hydrophobic Hydration and Association. Journal of Physical Chemistry B, 2013, 117, 15479-15491.	1.2	51
47	Deconstructing Classical Water Models at Interfaces and in Bulk. Journal of Statistical Physics, 2011, 145, 313-334.	0.5	44
48	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
49	Comment on â€œNMR spectroscopic studies of cellobiose solvation in EmimAc aimed to understand the dissolution mechanism of cellulose in ionic liquidsâ€•by J. Zhang, H. Zhang, J. Wu, J. Zhang, J. He and J. Xiang, Phys. Chem. Chem. Phys., 2010, 12, 1941. Physical Chemistry Chemical Physics, 2010, 12, 14827.	1.3	32
50	Solvation and Aggregation of N,Nâ€²-Dialkylimidazolium Ionic Liquids: A Multinuclear NMR Spectroscopy and Molecular Dynamics Simulation Study. Journal of Physical Chemistry B, 2008, 112, 7363-7369.	1.2	89
51	Solvation of Carbohydrates in N,Nâ€²-Dialkylimidazolium Ionic Liquids: A Multinuclear NMR Spectroscopy Study. Journal of Physical Chemistry B, 2008, 112, 11071-11078.	1.2	185
52	Can ionic liquids dissolve wood? Processing and analysis of lignocellulosic materials with 1-n-butyl-3-methylimidazolium chloride. Green Chemistry, 2007, 9, 63-69.	4.6	752
53	Hydrogen Bonds in Ionic Liquids Revisited:â€‰ ^{35/37}Cl NMR Studies of Deuterium Isotope Effects in 1-n-Butyl-3-Methylimidazolium Chloride. Journal of Physical Chemistry B, 2007, 111, 11619-11621.	1.2	83
54	Mechanism of cellulose dissolution in the ionic liquid 1-n-butyl-3-methylimidazolium chloride: a 13C and 35/37Cl NMR relaxation study on model systems. Chemical Communications, 2006, , 1271.	2.2	613