

Junrong Zheng

List of Publications by Year in descending order

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84
papers

4,918
citations

109321

35
h-index

91884

69
g-index

87
all docs

87
docs citations

87
times ranked

5225
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrafast Dynamics of Solute-Solvent Complexation Observed at Thermal Equilibrium in Real Time. <i>Science</i> , 2005, 309, 1338-1343.	12.6	416
2	Ultralong cycle stability of aqueous zinc-ion batteries with zinc vanadium oxide cathodes. <i>Science Advances</i> , 2019, 5, eaax4279.	10.3	410
3	Wide-Range Color-Tunable Organic Phosphorescence Materials for Printable and Writable Security Inks. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 16054-16060.	13.8	340
4	Ultrafast formation of interlayer hot excitons in atomically thin MoS ₂ /WS ₂ heterostructures. <i>Nature Communications</i> , 2016, 7, 12512.	12.8	313
5	Watching Hydrogen Bonds Break: A Transient Absorption Study of Water. <i>Journal of Physical Chemistry A</i> , 2004, 108, 10957-10964.	2.5	264
6	Ultrafast 2D IR Vibrational Echo Spectroscopy. <i>Accounts of Chemical Research</i> , 2007, 40, 75-83.	15.6	203
7	Water-Mediated Ion Pairing: Occurrence and Relevance. <i>Chemical Reviews</i> , 2016, 116, 7626-7641.	47.7	195
8	Ultrafast Carbon-Carbon Single-Bond Rotational Isomerization in Room-Temperature Solution. <i>Science</i> , 2006, 313, 1951-1955.	12.6	194
9	Ion clustering in aqueous solutions probed with vibrational energy transfer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 4737-4742.	7.1	140
10	Disruption of self-assembly and altered mechanical behavior in polyurethane/zinc oxide nanocomposites. <i>Polymer</i> , 2005, 46, 10873-10882.	3.8	114
11	Ultrafast Two-Dimensional Infrared Vibrational Echo Chemical Exchange Experiments and Theory. <i>Journal of Physical Chemistry B</i> , 2006, 110, 19998-20013.	2.6	109
12	Dehydrogenation of Formic Acid Catalyzed by a Ruthenium Complex with an <i>N,N</i> -Diimine Ligand. <i>Inorganic Chemistry</i> , 2017, 56, 438-445.	4.0	107
13	Transformed Akhtenskite MnO ₂ from Mn ₃ O ₄ as Cathode for a Rechargeable Aqueous Zinc Ion Battery. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16055-16063.	6.7	106
14	Selective Hydrogen Generation from Formic Acid with Well-Defined Complexes of Ruthenium and Phosphorus-Nitrogen Pincer Ligand. <i>Chemistry - an Asian Journal</i> , 2016, 11, 1357-1360.	3.3	94
15	Probing dynamics of complex molecular systems with ultrafast 2D IR vibrational echo spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 1533.	2.8	93
16	Direct Observation of Aggregation-Induced Emission Mechanism. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14903-14909.	13.8	85
17	Hydrogen Bond Lifetimes and Energetics for Solute/Solvent Complexes Studied with 2D-IR Vibrational Echo Spectroscopy. <i>Journal of the American Chemical Society</i> , 2007, 129, 4328-4335.	13.7	82
18	Polymer crystalline structure and morphology changes in nylon-6/ZnO nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003, 41, 1033-1050.	2.1	75

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19	Formation and Dissociation of Intra-Intermolecular Hydrogen-Bonded Solute-Solvent Complexes: A Chemical Exchange Two-Dimensional Infrared Vibrational Echo Spectroscopy. <i>Journal of the American Chemical Society</i> , 2006, 128, 2977-2987.	13.7	75
20	Mode-specific intermolecular vibrational energy transfer. II. Deuterated water and potassium selenocyanate mixture. <i>Journal of Chemical Physics</i> , 2010, 133, 034505.	3.0	68
21	Cation Effects on Rotational Dynamics of Anions and Water Molecules in Alkali (Li ⁺), <i>Tj ETQq1 1 0.784314 rgBT /Overlo</i> <i>Journal of Physical Chemistry B</i> , 2013, 117, 7972-7984.	2.6	64
22	Phase separation and mechanical responses of polyurethane nanocomposites. <i>Polymer</i> , 2006, 47, 7786-7794.	3.8	63
23	Mode-specific intermolecular vibrational energy transfer. I. Phenyl selenocyanate and deuterated chloroform mixture. <i>Journal of Chemical Physics</i> , 2010, 132, .	3.0	59
24	Diverse catalytic reactivity of a dearomatized PN ₃ P nickel hydride pincer complex towards CO ₂ reduction. <i>Chemical Communications</i> , 2018, 54, 11395-11398.	4.1	56
25	Coordination Number of Li ⁺ in Nonaqueous Electrolyte Solutions Determined by Molecular Rotational Measurements. <i>Journal of Physical Chemistry B</i> , 2014, 118, 3689-3695.	2.6	53
26	Nonresonant and Resonant Mode-Specific Intermolecular Vibrational Energy Transfers in Electrolyte Aqueous Solutions. <i>Journal of Physical Chemistry A</i> , 2011, 115, 11657-11664.	2.5	50
27	Phenol-benzene complexation dynamics: Quantum chemistry calculation, molecular dynamics simulations, and two dimensional IR spectroscopy. <i>Journal of Chemical Physics</i> , 2006, 125, 244508.	3.0	49
28	Broadband THz reflective polarization rotator by multiple plasmon resonances. <i>Optics Express</i> , 2014, 22, 28292.	3.4	46
29	Intermolecular vibrational energy transfers in liquids and solids. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 13995-14014.	2.8	45
30	Solute-Solvent Complex Kinetics and Thermodynamics Probed by 2D-IR Vibrational Echo Chemical Exchange Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2008, 112, 10221-10227.	2.6	42
31	The Anion Effect on Li ⁺ Ion Coordination Structure in Ethylene Carbonate Solutions. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3554-3559.	4.6	42
32	Ultrafast multiple-mode multiple-dimensional vibrational spectroscopy. <i>International Reviews in Physical Chemistry</i> , 2012, 31, 469-565.	2.3	41
33	Wide-Range Color-Tunable Organic Phosphorescence Materials for Printable and Writable Security Inks. <i>Angewandte Chemie</i> , 2020, 132, 16188-16194.	2.0	40
34	The opposite effects of sodium and potassium cations on water dynamics. <i>Chemical Science</i> , 2017, 8, 1429-1435.	7.4	39
35	Ion Segregation in Aqueous Solutions. <i>Journal of Physical Chemistry B</i> , 2012, 116, 14426-14432.	2.6	38
36	Mapping Molecular Conformations with Multiple-Mode Two-Dimensional Infrared Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2011, 115, 3357-3365.	2.5	36

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37	Vibrational Energy Transfer: An Angstrom Molecular Ruler in Studies of Ion Pairing and Clustering in Aqueous Solutions. <i>Journal of Physical Chemistry B</i> , 2015, 119, 4333-4349.	2.6	34
38	Low-Cost Aqueous Magnesium-Ion Battery Capacitor with Commercial MnO_4 and Activated Carbon. <i>ChemElectroChem</i> , 2018, 5, 2789-2794.	3.4	32
39	Molecular Conformations and Dynamics on Surfaces of Gold Nanoparticles Probed with Multiple-Mode Multiple-Dimensional Infrared Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7913-7924.	3.1	31
40	Ultrafast probes of electron-hole transitions between two atomic layers. <i>Nature Communications</i> , 2018, 9, 1859.	12.8	30
41	Intermolecular vibrational energy exchange directly probed with ultrafast two dimensional infrared spectroscopy. <i>Journal of Chemical Physics</i> , 2009, 131, 124501.	3.0	28
42	What Leads to Aggregation-Induced Emission?. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 4218-4226.	4.6	28
43	Ion Association in Aqueous Solutions Probed through Vibrational Energy Transfers among Cation, Anion, and Water Molecules. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4274-4283.	2.6	26
44	Molecular Distances Determined with Resonant Vibrational Energy Transfers. <i>Journal of Physical Chemistry A</i> , 2014, 118, 2463-2469.	2.5	26
45	Solvation structure around the Li^+ ion in succinonitrile-lithium salt plastic crystalline electrolytes. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 14867-14873.	2.8	25
46	Probing Ion/Molecule Interactions in Aqueous Solutions with Vibrational Energy Transfer. <i>Journal of Physical Chemistry B</i> , 2012, 116, 12284-12294.	2.6	24
47	Microscopic Origin of the Deviation from Stokes-Einstein Behavior Observed in Dynamics of the KSCN Aqueous Solutions: A MD Simulation Study. <i>Journal of Physical Chemistry B</i> , 2013, 117, 2992-3004.	2.6	24
48	A low-cost $\text{Mg}^{2+}/\text{Na}^+$ hybrid aqueous battery. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15762-15770.	10.3	23
49	A Pseudodearomatized $\text{PN}_3\text{P}^*\text{Ni}^{\text{II}}\text{H}$ Complex as a Ligand and π -Nucleophilic Catalyst. <i>Journal of Organic Chemistry</i> , 2018, 83, 14969-14977.	3.2	21
50	Ordered-to-Disordered Transformation of Enhanced Water Structure on Hydrophobic Surfaces in Concentrated Alcohol-Water Solutions. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7922-7928.	4.6	21
51	Relative Intermolecular Orientation Probed via Molecular Heat Transport. <i>Journal of Physical Chemistry A</i> , 2013, 117, 6052-6065.	2.5	20
52	Terahertz Vibrational Modes of the Rigid Crystal Phase of Succinonitrile. <i>Journal of Physical Chemistry A</i> , 2014, 118, 2442-2446.	2.5	20
53	Two distinctive energy migration pathways of monolayer molecules on metal nanoparticle surfaces. <i>Nature Communications</i> , 2016, 7, 10749.	12.8	18
54	Structural analysis of transient reaction intermediate in formic acid dehydrogenation catalysis using two-dimensional IR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12395-12400.	7.1	17

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55	Synthesis of Lactams via Ir-Catalyzed C-H Amidation Involving Ir-Nitrene Intermediates. <i>Journal of Organic Chemistry</i> , 2020, 85, 4430-4440.	3.2	17
56	NMR relaxation and pulsed-gradient diffusion study of polyethylene nanocomposites. <i>Journal of Chemical Physics</i> , 2005, 123, 134901.	3.0	16
57	Electron-phonon interactions in MoS ₂ probed with ultrafast two-dimensional visible/far-infrared spectroscopy. <i>Journal of Chemical Physics</i> , 2015, 142, 212447.	3.0	16
58	Vibrational Cross-Angles in Condensed Molecules: A Structural Tool. <i>Journal of Physical Chemistry A</i> , 2013, 117, 8407-8415.	2.5	15
59	Molecular Conformations of Crystalline L-Cysteine Determined with Vibrational Cross Angle Measurements. <i>Journal of Physical Chemistry B</i> , 2013, 117, 15614-15624.	2.6	15
60	A hybridized solid-gel nonflammable Li-Battery. <i>Journal of Power Sources</i> , 2018, 394, 26-34.	7.8	15
61	Accidental vibrational degeneracy in vibrational excited states observed with ultrafast two-dimensional IR vibrational echo spectroscopy. <i>Journal of Chemical Physics</i> , 2005, 123, 164301.	3.0	13
62	Isotropic ordering of ions in ionic liquids on the sub-nanometer scale. <i>Chemical Science</i> , 2018, 9, 1464-1472.	7.4	12
63	Comparison Studies on Sub-Nanometer-Sized Ion Clusters in Aqueous Solutions: Vibrational Energy Transfers, MD Simulations, and Neutron Scattering. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9893-9904.	2.6	11
64	Nonresonant Vibrational Energy Transfer on Metal Nanoparticle/Liquid Interface. <i>Journal of Physical Chemistry C</i> , 2016, 120, 25173-25179.	3.1	11
65	Photoluminescence of monolayer MoS ₂ modulated by water/O ₂ /laser irradiation. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 24579-24588.	2.8	11
66	Effectively Regulating More Robust Amorphous Li Clusters for Ultrastable Free Cycling. <i>Advanced Science</i> , 2021, 8, e2101584.	11.2	9
67	Direct Observation of Aggregation-Induced Emission Mechanism. <i>Angewandte Chemie</i> , 2020, 132, 15013-15019.	2.0	9
68	Nonresonant Energy Transfers Independent on the Phonon Densities in Polyatomic Liquids. <i>Journal of Physical Chemistry A</i> , 2015, 119, 669-680.	2.5	8
69	Negligible Isotopic Effect on Dissociation of Hydrogen Bonds. <i>Journal of Physical Chemistry B</i> , 2016, 120, 3187-3195.	2.6	7
70	Facile ACQ-to-AIE transformation via diphenylphosphine (DPP) modification with versatile properties. <i>Journal of Materials Chemistry C</i> , 2022, 10, 3560-3566.	5.5	7
71	Electrochemical behavior of poly(2-methoxy-5-dodecyloxy-1,4-phenylene vinylene) film electrode. <i>Supramolecular Science</i> , 1998, 5, 519-522.	0.7	5
72	Terahertz Conductivity and Hindered Molecular Reorientation of Lithium Salt Doped Succinonitrile in its Plastic Crystal Phase. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2014, 35, 770-779.	2.2	5

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73	Pathways of Exciton Triggered Hot-Carrier Injection at Plasmonic Metal-Transition Metal Dichalcogenide Interface. <i>Advanced Optical Materials</i> , 2022, 10, 2100070.	7.3	5
74	Non-sedated functional imaging based on deep synchronization of PROPELLER MRI and NIRS. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 175, 1-7.	4.7	3
75	Intermolecular energy flows between surface molecules on metal nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4240-4245.	2.8	3
76	Relative molecular orientations in organic optoelectronic films probed via polarization-selected UV/IR mixed frequency ultrafast spectroscopy. <i>Chinese Journal of Chemical Physics</i> , 2022, 35, 95-103.	1.3	2
77	Synthesis and properties of alkyl-substituted poly(1,4-phenylenevinylene) derivatives. <i>Journal of Applied Polymer Science</i> , 2001, 80, 1299-1304.	2.6	1
78	Intermolecular Vibrational Energy Transfers in Melts and Solutions. <i>Chinese Journal of Chemical Physics</i> , 2016, 29, 407-417.	1.3	1
79	Dendrite-free lithium electrodeposition enabled by 3D porous lithiophilic host toward stable lithium metal anodes. <i>Oxford Open Materials Science</i> , 2020, 1, .	1.8	1
80	Double crossing conical intersections and anti-Vavilov fluorescence in tetraphenyl ethylene. <i>Journal of Chemical Physics</i> , 2022, 156, 144302.	3.0	1
81	Ultrafast Chemical Exchange 2D IR Spectroscopy. , 2006, , .		0
82	Ultrafast Chemical Exchange 2D IR Spectroscopy. <i>Springer Series in Chemical Physics</i> , 2007, , 323-325.	0.2	0
83	Concealing Messages at the Atomic-Thin Level by Reaching the Limit of Writing. <i>Advanced Materials Technologies</i> , 2022, 7, 2101089.	5.8	0
84	Two-Atomic-Layered Optoelectronic Device Enabled by Charge Separation on Graphene/Semiconductor Interface. <i>Journal of Chemical Physics</i> , 2022, 156, 044704.	3.0	0