Mischa Bonn

List of Publications by Year
in descending order

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531	27,203	4641	11288
papers	citations	85 h-index	136 g-index

554	554	554	25296
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Carrier dynamics in semiconductors studied with time-resolved terahertz spectroscopy. Reviews of Modern Physics, 2011, 83, 543-586.	16.4	978
2	Cooperativity in Ion Hydration. Science, 2010, 328, 1006-1009.	6.0	562
3	Photoexcitation cascade and multiple hot-carrier generation in graphene. Nature Physics, 2013, 9, 248-252.	6.5	512
4	Synthesis of structurally well-defined and liquid-phase-processable graphene nanoribbons. Nature Chemistry, 2014, 6, 126-132.	6.6	468
5	Phonon- Versus Electron-Mediated Desorption and Oxidation of CO on Ru(0001). Science, 1999, 285, 1042-1045.	6.0	443
6	Boosting Power Conversion Efficiencies of Quantum-Dot-Sensitized Solar Cells Beyond 8% by Recombination Control. Journal of the American Chemical Society, 2015, 137, 5602-5609.	6.6	367
7	Extremely efficient terahertz high-harmonic generation in graphene by hot Dirac fermions. Nature, 2018, 561, 507-511.	13.7	365
8	Local Field Effects on Electron Transport in Nanostructured TiO2 Revealed by Terahertz Spectroscopy. Nano Letters, 2006, 6, 755-759.	4.5	351
9	High-mobility band-like charge transport in a semiconducting two-dimensional metalâ€“organic framework. Nature Materials, 2018, 17, 1027-1032.	13.3	341
10	Vibrational Spectroscopy and Dynamics of Water. Chemical Reviews, 2016, 116, 7590-7607.	23.0	300
11	Vibrational Response of Hydrogen-Bonded Interfacial Water is Dominated by Intramolecular Coupling. Physical Review Letters, 2008, 100, 173901.	2.9	296
12	Assessment of carrier-multiplication efficiency in bulk PbSe and PbS. Nature Physics, 2009, 5, 811-814.	6.5	245
13	Unified Molecular View of the Air/Water Interface Based on Experimental and Theoretical Ï‡⁽²⁾ Spectra of an Isotopically Diluted Water Surface. Journal of the American Chemical Society, 2011, 133, 16875-16880.	6.6	245
14	Unveiling Electronic Properties in Metalâ€“Phthalocyanine-Based Pyrazine-Linked Conjugated Two-Dimensional Covalent Organic Frameworks. Journal of the American Chemical Society, 2019, 141, 16810-16816.	6.6	227
15	Sulfurâ€Enriched Conjugated Polymer Nanosheet Derived Sulfur and Nitrogen coâ€Doped Porous Carbon Nanosheets as Electrocatalysts for Oxygen Reduction Reaction and Zincâ€“Air Battery. Advanced Functional Materials, 2016, 26, 5893-5902.	7.8	214
16	Direct extraction of Raman line-shapes from congested CARS spectra. Optics Express, 2006, 14, 3622.	1.7	210
17	Quantitative Label-Free Imaging of Lipid Composition and Packing of Individual Cellular Lipid Droplets Using Multiplex CARS Microscopy. Biophysical Journal, 2008, 95, 4908-4914.	0.2	205
18	Electron transport inTiO2probed by THz time-domain spectroscopy. Physical Review B, 2004, 69, .	1.1	203

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19	Direct Observation of Electron-to-Hole Energy Transfer in CdSe Quantum Dots. Physical Review Letters, 2006, 96, 057408.	2.9	197
20	Ultrafast electron dynamics at metal surfaces: Competition between electron-phonon coupling and hot-electron transport. Physical Review B, 2000, 61, 1101-1105.	1.1	187
21	Liquid flow along a solid surface reversibly alters interfacial chemistry. Science, 2014, 344, 1138-1142.	6.0	187
22	Phononâ€“Electron Scattering Limits Free Charge Mobility in Methylammonium Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 4991-4996.	2.1	186
23	Water at charged interfaces. Nature Reviews Chemistry, 2021, 5, 466-485.	13.8	186
24	Efficiency of Exciton and Charge Carrier Photogeneration in a Semiconducting Polymer. Physical Review Letters, 2004, 92, 196601.	2.9	183
25	Ice-nucleating bacteria control the order and dynamics of interfacial water. Science Advances, 2016, 2, e1501630.	4.7	182
26	Ultrafast vibrational energy transfer at the water/air interface revealed by two-dimensional surface vibrational spectroscopy. Nature Chemistry, 2011, 3, 888-893.	6.6	177
27	Femtosecond Surface Vibrational Spectroscopy of CO Adsorbed on Ru(001) during Desorption. Physical Review Letters, 2000, 84, 4653-4656.	2.9	175
28	The Bending Mode of Water: A Powerful Probe for Hydrogen Bond Structure of Aqueous Systems. Journal of Physical Chemistry Letters, 2020, 11, 8459-8469.	2.1	175
29	Carrier Multiplication and Its Reduction by Photodoping in Colloidal InAs Quantum Dots. Journal of Physical Chemistry C, 2007, 111, 4146-4152.	1.5	172
30	Real-Time Observation of Molecular Motion on a Surface. Science, 2005, 310, 1790-1793.	6.0	167
31	Dielectric Relaxation Dynamics of Water in Model Membranes Probed by Terahertz Spectroscopy. Biophysical Journal, 2009, 97, 2484-2492.	0.2	166
32	Single-shot measurement of terahertz electromagnetic pulses by use of electro-optic sampling. Optics Letters, 2000, 25, 426.	1.7	163
33	Vibrational Spectroscopic Investigation of the Phase Diagram of a Biomimetic Lipid Monolayer. Physical Review Letters, 2003, 90, 128101.	2.9	159
34	On the Absence of Detectable Carrier Multiplication in a Transient Absorption Study of InAs/CdSe/ZnSe Core/Shell1/Shell2 Quantum Dots. Nano Letters, 2008, 8, 1207-1211.	4.5	159
35	Nonlinear optical scattering: The concept of effective susceptibility. Physical Review B, 2004, 70, .	1.1	150
36	Ultrafast surface vibrational dynamics. Surface Science Reports, 2010, 65, 45-66.	3.8	148

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37	Thermodynamic picture of ultrafast charge transport in graphene. Nature Communications, 2015, 6, 7655.	5.8	147
38	Exciton polarizability in semiconductor nanocrystals. Nature Materials, 2006, 5, 861-864.	13.3	146
39	Coordination Polymer Framework Based Onâ€Chip Microâ€Supercapacitors with AC Lineâ€Filtering Performance. Angewandte Chemie - International Edition, 2017, 56, 3920-3924.	7.2	140
40	Bottom-Up Synthesis of Liquid-Phase-Processable Graphene Nanoribbons with Near-Infrared Absorption. ACS Nano, 2014, 8, 11622-11630.	7.3	138
41	Hydrogen bonding strength of interfacial water determined with surface sum-frequency generation. Chemical Physics Letters, 2009, 470, 7-12.	1.2	137
42	Vibrational Sum Frequency Scattering from a Submicron Suspension. Physical Review Letters, 2003, 91, 258302.	2.9	135
43	Molecular Structure and Dynamics of Water at the Waterâ€“Air Interface Studied with Surfaceâ€Specific Vibrational Spectroscopy. Angewandte Chemie - International Edition, 2015, 54, 5560-5576.	7.2	132
44	Strong frequency dependence of vibrational relaxation in bulk and surface water reveals sub-picosecond structural heterogeneity. Nature Communications, 2015, 6, 8384.	5.8	132
45	Experimental and theoretical evidence for bilayer-by-bilayer surface melting of crystalline ice. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 227-232.	3.3	131
46	Out-of-plane heat transfer in van der Waals stacks through electronâ€“hyperbolic phonon coupling. Nature Nanotechnology, 2018, 13, 41-46.	15.6	128
47	Complex Formation in Aqueous Trimethylamine-N-oxide (TMAO) Solutions. Journal of Physical Chemistry B, 2012, 116, 4783-4795.	1.2	127
48	Optical Control over Surface-Plasmon-Polariton-Assisted THz Transmission through a Slit Aperture. Physical Review Letters, 2008, 100, 123901.	2.9	125
49	Influence of Concentration and Temperature on the Dynamics of Water in the Hydrophobic Hydration Shell of Tetramethylurea. Journal of the American Chemical Society, 2010, 132, 15671-15678.	6.6	124
50	Quantifying Polaron Formation and Charge Carrier Cooling in Leadâ€Iodide Perovskites. Advanced Materials, 2018, 30, e1707312.	11.1	124
51	Ultra-broadband THz time-domain spectroscopy of common polymers using THz air photonics. Optics Express, 2014, 22, 12475.	1.7	121
52	Quantitative Coherent Anti-Stokes Raman Scattering (CARS) Microscopy. Journal of Physical Chemistry B, 2011, 115, 7713-7725.	1.2	120
53	A semiconducting layered metal-organic framework magnet. Nature Communications, 2019, 10, 3260.	5.8	119
54	The Polyphenol EGCG Inhibits Amyloid Formation Less Efficiently at Phospholipid Interfaces than in Bulk Solution. Journal of the American Chemical Society, 2012, 134, 14781-14788.	6.6	118

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55	Ultrafast Photoconductivity of Graphene Nanoribbons and Carbon Nanotubes. Nano Letters, 2013, 13, 5925-5930.	4.5	117
56	Structure and Dynamics of Interfacial Peptides and Proteins from Vibrational Sum-Frequency Generation Spectroscopy. Chemical Reviews, 2020, 120, 3420-3465.	23.0	114
57	High-Mobility Semiconducting Two-Dimensional Conjugated Covalent Organic Frameworks with p-Type Doping. Journal of the American Chemical Society, 2020, 142, 21622-21627.	6.6	113
58	Morphology and Persistence Length of Amyloid Fibrils Are Correlated to Peptide Molecular Structure. Journal of the American Chemical Society, 2011, 133, 18030-18033.	6.6	112
59	Interchain effects in the ultrafast photophysics of a semiconducting polymer:THztime-domain spectroscopy of thin films and isolated chains in solution. Physical Review B, 2005, 71, .	1.1	110
60	Calcium-Induced Phospholipid Ordering Depends on Surface Pressure. Journal of the American Chemical Society, 2007, 129, 11079-11084.	6.6	110
61	Molecular hydrophobicity at a macroscopically hydrophilic surface. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1520-1525.	3.3	109
62	Anisotropic Water Reorientation around Ions. Journal of Physical Chemistry B, 2011, 115, 12638-12647.	1.2	108
63	Aqueous Heterogeneity at the Air/Water Interface Revealed by 2Dâ€HDâ€SFG Spectroscopy. Angewandte Chemie - International Edition, 2014, 53, 8146-8149.	7.2	106
64	Accessing the fundamentals of magnetotransport in metals with terahertz probes. Nature Physics, 2015, 11, 761-766.	6.5	103
65	Desorption of CO from Ru(001) induced by near-infrared femtosecond laser pulses. Journal of Chemical Physics, 2000, 112, 9888-9897.	1.2	102
66	Ultrafast Vibrational Energy Transfer between Surface and Bulk Water at the Air-Water Interface. Physical Review Letters, 2007, 98, 098302.	2.9	102
67	Water orientation and hydrogen-bond structure at the fluorite/water interface. Scientific Reports, 2016, 6, 24287.	1.6	101
68	Both Inter- and Intramolecular Coupling of Oâ€“H Groups Determine the Vibrational Response of the Water/Air Interface. Journal of Physical Chemistry Letters, 2016, 7, 4591-4595.	2.1	101
69	Water Bending Mode at the Waterâ€“Vapor Interface Probed by Sum-Frequency Generation Spectroscopy: A Combined Molecular Dynamics Simulation and Experimental Study. Journal of Physical Chemistry Letters, 2013, 4, 1872-1877.	2.1	100
70	Toward ab initio molecular dynamics modeling for sum-frequency generation spectra; an efficient algorithm based on surface-specific velocity-velocity correlation function. Journal of Chemical Physics, 2015, 143, 124702.	1.2	100
71	Highly Crystalline and Semiconducting Imineâ€Based Twoâ€Dimensional Polymers Enabled by Interfacial Synthesis. Angewandte Chemie - International Edition, 2020, 59, 6028-6036.	7.2	98
72	Quantitative CARS Molecular Fingerprinting of Single Living Cells with the Use of the Maximum Entropy Method. Angewandte Chemie - International Edition, 2010, 49, 6773-6777.	7.2	97

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73	Competing Ultrafast Energy Relaxation Pathways in Photoexcited Graphene. Nano Letters, 2014, 14, 5839-5845.	4.5	97
74	Extreme surface propensity of halide ions in water. Nature Communications, 2014, 5, 4083.	5.8	97
75	IM30 triggers membrane fusion in cyanobacteria and chloroplasts. Nature Communications, 2015, 6, 7018.	5.8	97
76	Terahertz Nonlinear Optics of Graphene: From Saturable Absorption to Highâ€Harmonics Generation. Advanced Optical Materials, 2020, 8, 1900771.	3.6	97
77	Molecular Structure and Modeling of Waterâ€“Air and Iceâ€“Air Interfaces Monitored by Sum-Frequency Generation. Chemical Reviews, 2020, 120, 3633-3667.	23.0	97
78	Photoswitchable Micro-Supercapacitor Based on a Diarylethene-Graphene Composite Film. Journal of the American Chemical Society, 2017, 139, 9443-9446.	6.6	96
79	A Molecular View of Cholesterol-Induced Condensation in a Lipid Monolayer. Journal of Physical Chemistry B, 2004, 108, 19083-19085.	1.2	95
80	THz dielectric relaxation of ionic liquid:water mixtures. Chemical Physics Letters, 2007, 439, 60-64.	1.2	95
81	Ultrafast Two Dimensional-Infrared Spectroscopy of a Molecular Monolayer. Journal of the American Chemical Society, 2008, 130, 2152-2153.	6.6	95
82	The ultrafast dynamics and conductivity of photoexcited graphene at different Fermi energies. Science Advances, 2018, 4, eaar5313.	4.7	95
83	Structure Dynamics of the Proton in Liquid Water Probed with Terahertz Time-Domain Spectroscopy. Physical Review Letters, 2009, 102, 198303.	2.9	91
84	Surface-specific vibrational spectroscopy of the water/silica interface: screening and interference. Physical Chemistry Chemical Physics, 2017, 19, 16875-16880.	1.3	91
85	Role of Dielectric Drag in Polaron Mobility in Lead Halide Perovskites. ACS Energy Letters, 2017, 2, 2555-2562.	8.8	90
86	Interface-Specific Ultrafast Two-Dimensional Vibrational Spectroscopy. Accounts of Chemical Research, 2009, 42, 1332-1342.	7.6	89
87	Amyloids: From molecular structure to mechanical properties. Polymer, 2013, 54, 2473-2488.	1.8	89
88	Chemisorbed and Physisorbed Water at the TiO₂/Water Interface. Journal of Physical Chemistry Letters, 2017, 8, 2195-2199.	2.1	89
89	Charge Transport and Carrier Dynamics in Liquids Probed by THz Time-Domain Spectroscopy. Physical Review Letters, 2001, 86, 340-343.	2.9	88
90	Chemical Vapor Deposition Synthesis and Terahertz Photoconductivity of Low-Band-Gap N = 9 Armchair Graphene Nanoribbons. Journal of the American Chemical Society, 2017, 139, 3635-3638.	6.6	88

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91	On the origin of the extremely different solubilities of polyethers in water. Nature Communications, 2019, 10, 2893.	5.8	88
92	Quantitative CARS Spectroscopy Using the Maximum Entropy Method: The Main Lipid Phase Transition. ChemPhysChem, 2007, 8, 279-287.	1.0	86
93	Coulomb explosion in femtosecond laser ablation of Si(111). Applied Physics Letters, 2003, 82, 4190-4192.	1.5	84
94	Ultrafast Reorientation of Dangling OH Groups at the Air-Water Interface Using Femtosecond Vibrational Spectroscopy. Physical Review Letters, 2011, 107, 116102.	2.9	84
95	Membrane-Bound Water is Energetically Decoupled from Nearby Bulk Water:â€‰ An Ultrafast Surface-Specific Investigation. Journal of the American Chemical Society, 2007, 129, 9608-9609.	6.6	83
96	Tuning Electron Transfer Rates through Molecular Bridges in Quantum Dot Sensitized Oxides. Nano Letters, 2013, 13, 5311-5315.	4.5	83
97	Determining Absolute Molecular Orientation at Interfaces: A Phase Retrieval Approach for Sum Frequency Generation Spectroscopy. Journal of Physical Chemistry C, 2009, 113, 6100-6106.	1.5	82
98	Structural Inhomogeneity of Interfacial Water at Lipid Monolayers Revealed by Surface-Specific Vibrational Pumpâ˜Probe Spectroscopy. Journal of the American Chemical Society, 2010, 132, 14971-14978.	6.6	82
99	Surface Crystallization of Amorphous Solid Water. Physical Review Letters, 2004, 92, 236101.	2.9	81
100	Determining In Situ Protein Conformation and Orientation from the Amide-I Sum-Frequency Generation Spectrum: Theory and Experiment. Journal of Physical Chemistry A, 2013, 117, 6311-6322.	1.1	81
101	Dynamic Surface Tension of Surfactants in the Presence of High Salt Concentrations. Langmuir, 2020, 36, 7956-7964.	1.6	81
102	Ultrafast optical switching of the THz transmission through metallic subwavelength hole arrays. Physical Review B, 2007, 75, .	1.1	80
103	Carrier multiplication in bulk and nanocrystalline semiconductors: Mechanism, efficiency, and interest for solar cells. Physical Review B, 2010, 81, .	1.1	80
104	Nuclear Quantum Effects Affect Bond Orientation of Water at the Water-Vapor Interface. Physical Review Letters, 2012, 109, 226101.	2.9	79
105	Genetically encoded lipidâ€“polypeptide hybrid biomaterials that exhibit temperature-triggered hierarchical self-assembly. Nature Chemistry, 2018, 10, 496-505.	6.6	79
106	Exciton and electron-hole plasma formation dynamics in ZnO. Physical Review B, 2007, 76, .	1.1	77
107	Mechanism of vibrational energy dissipation of free OH groups at the airâ€“water interface. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18780-18785.	3.3	77
108	Saturation of charge-induced water alignment at model membrane surfaces. Science Advances, 2018, 4, eaap7415.	4.7	76

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109	Observation of buried water molecules in phospholipid membranes by surface sum-frequency generation spectroscopy. Journal of Chemical Physics, 2009, 131, 161107.	1.2	75
110	The Role of Intact Oleosin for Stabilization and Function of Oleosomes. Journal of Physical Chemistry B, 2013, 117, 13872-13883.	1.2	75
111	Molecular Mechanism of Water Evaporation. Physical Review Letters, 2015, 115, 236102.	2.9	75
112	Label-Free Imaging of Lipophilic Bioactive Molecules during Lipid Digestion by Multiplex Coherent Anti-Stokes Raman Scattering Microspectroscopy. Journal of the American Chemical Society, 2010, 132, 8433-8439.	6.6	74
113	Single-pulse terahertz coherent control of spin resonance in the canted antiferromagnet YFeO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>, mediated by dielectric anisotropy. Physical Review B, 2013, 87, .	1.1	74
114	Lipid Carbonyl Groups Terminate the Hydrogen Bond Network of Membrane-Bound Water. Journal of Physical Chemistry Letters, 2015, 6, 4499-4503.	2.1	74
115	Comparative Study of Direct and Phase-Specific Vibrational Sum-Frequency Generation Spectroscopy: Advantages and Limitations. Journal of Physical Chemistry B, 2011, 115, 15362-15369.	1.2	73
116	Label-free characterization of biomembranes: from structure to dynamics. Chemical Society Reviews, 2014, 43, 887-900.	18.7	72
117	Tuning the Structural and Optoelectronic Properties of Cs₂AgBiBr₆ Doubleâ€Perovskite Single Crystals through Alkaliâ€Metal Substitution. Advanced Materials, 2020, 32, e2001878.	11.1	72
118	Ultrafast active control of localized surface plasmon resonances in silicon bowtie antennas. Optics Express, 2010, 18, 23226.	1.7	70
119	Water-mediated interactions between trimethylamine-N-oxide and urea. Physical Chemistry Chemical Physics, 2015, 17, 298-306.	1.3	70
120	Nanoscale Heterogeneity of the Molecular Structure of Individual hIAPP Amyloid Fibrils Revealed with Tipâ€Enhanced Raman Spectroscopy. Small, 2015, 11, 4131-4139.	5.2	69
121	Grating-Graphene Metamaterial as a Platform for Terahertz Nonlinear Photonics. ACS Nano, 2021, 15, 1145-1154.	7.3	69
122	Sensitive Probing of DNA Binding to a Cationic Lipid Monolayer. Journal of the American Chemical Society, 2007, 129, 8420-8421.	6.6	68
123	Coupling between intra- and intermolecular motions in liquid water revealed by two-dimensional terahertz-infrared-visible spectroscopy. Nature Communications, 2018, 9, 885.	5.8	67
124	Measurement of the Frequency-Dependent Conductivity in Sapphire. Physical Review Letters, 2003, 90, 247401.	2.9	66
125	Labelâ€Free Chemical Imaging of Catalytic Solids by Coherent Antiâ€Stokes Raman Scattering and Synchrotronâ€Based Infrared Microscopy. Angewandte Chemie - International Edition, 2009, 48, 8990-8994.	7.2	65
126	Hydrogen-Bond Dynamics in a Protic Ionic Liquid: Evidence of Large-Angle Jumps. Journal of Physical Chemistry Letters, 2012, 3, 3034-3038.	2.1	65

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127	On the Role of Fresnel Factors in Sum-Frequency Generation Spectroscopy of Metalâ€“Water and Metal-Oxideâ€“Water Interfaces. Journal of Physical Chemistry C, 2012, 116, 23351-23361.	1.5	65
128	Lateral Fusion of Chemical Vapor Deposited N = 5 Armchair Graphene Nanoribbons. Journal of the American Chemical Society, 2017, 139, 9483-9486.	6.6	65
129	Time- vs. frequency-domain femtosecond surface sum frequency generation. Chemical Physics Letters, 2003, 370, 227-232.	1.2	64
130	Quantitative Multiplex CARS Spectroscopy in Congested Spectral Regions. Journal of Physical Chemistry B, 2006, 110, 4472-4479.	1.2	64
131	Role of Edge Engineering in Photoconductivity of Graphene Nanoribbons. Journal of the American Chemical Society, 2017, 139, 7982-7988.	6.6	64
132	Picosecond Electron Injection Dynamics in Dye-Sensitized Oxides in the Presence of Electrolyte. Journal of Physical Chemistry C, 2011, 115, 2578-2584.	1.5	63
133	Direct observation of mode-specific phonon-band gap coupling in methylammonium lead halide perovskites. Nature Communications, 2017, 8, 687.	5.8	63
134	Molecular Insight into the Slipperiness of Ice. Journal of Physical Chemistry Letters, 2018, 9, 2838-2842.	2.1	63
135	Anomalous Independence of Multiple Exciton Generation on Different Group IVâ€“VI Quantum Dot Architectures. Nano Letters, 2011, 11, 1623-1629.	4.5	61
136	Ultrafast terahertz magnetometry. Nature Communications, 2020, 11, 4247.	5.8	61
137	Laser-Heating-Induced Displacement of Surfactants on the Water Surface. Journal of Physical Chemistry B, 2012, 116, 2703-2712.	1.2	60
138	Serotonergic innervation and serotonin receptor expression of NPY-producing neurons in the rat lateral and basolateral amygdaloid nuclei. Brain Structure and Function, 2013, 218, 421-435.	1.2	60
139	The surface roughness, but not the water molecular orientation varies with temperature at the waterâ€“air interface. Physical Chemistry Chemical Physics, 2015, 17, 23559-23564.	1.3	60
140	Interfacial Approach toward Benzeneâ€Bridged Polypyrrole Filmâ€“Based Microâ€Supercapacitors with Ultrahigh Volumetric Power Density. Advanced Functional Materials, 2020, 30, 1908243.	7.8	60
141	Long-lived charge separation following pump-wavelengthâ€“dependent ultrafast charge transfer in graphene/WS ₂ heterostructures. Science Advances, 2021, 7, .	4.7	60
142	Direct Observation of Vibrational Energy Delocalization on Surfaces: CO on Ru(001). Physical Review Letters, 2000, 85, 4341-4344.	2.9	59
143	The Interaction of Water with the Pt(533) Surface. Journal of Physical Chemistry B, 2004, 108, 12575-12582.	1.2	59
144	Two Types of Water at the Waterâ€“Surfactant Interface Revealed by Time-Resolved Vibrational Spectroscopy. Journal of the American Chemical Society, 2015, 137, 14912-14919.	6.6	58

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145	Surface molecular view of colloidal gelation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13310-13314.	3.3	57
146	Picosecond orientational dynamics of water in living cells. Nature Communications, 2017, 8, 904.	5.8	57
147	The Surface of Ice under Equilibrium and Nonequilibrium Conditions. Accounts of Chemical Research, 2019, 52, 1006-1015.	7.6	57
148	Kinetic Control over Self-Assembly of Semiconductor Nanoplatelets. Nano Letters, 2020, 20, 4102-4110.	4.5	57
149	Probing the charge separation process on In 2 S 3 /Pt-TiO 2 nanocomposites for boosted visible-light photocatalytic hydrogen production. Applied Catalysis B: Environmental, 2016, 198, 25-31.	10.8	56
150	Probing the Mineralâ€“Water Interface with Nonlinear Optical Spectroscopy. Angewandte Chemie - International Edition, 2021, 60, 10482-10501.	7.2	56
151	The dynamics of vibrational excitations on surfaces: CO on Ru(001). Journal of Chemical Physics, 2001, 115, 7725-7735.	1.2	55
152	Reduction of carrier mobility in semiconductors caused by charge-charge interactions. Physical Review B, 2007, 75, .	1.1	55
153	Simulation studies of pore and domain formation in a phospholipid monolayer. Journal of Chemical Physics, 2005, 122, 024704.	1.2	54
154	Small Size, Big Impact: Recent Progress in Bottomâ€Up Synthesized Nanographenes for Optoelectronic and Energy Applications. Advanced Science, 2022, 9, e2106055.	5.6	54
155	Novel Surface Vibrational Spectroscopy: Infrared-Infrared-Visible Sum-Frequency Generation. Physical Review Letters, 2001, 86, 1566-1569.	2.9	53
156	Size-Dependent Electron Transfer from PbSe Quantum Dots to SnO2Monitored by Picosecond Terahertz Spectroscopy. Nano Letters, 2011, 11, 5234-5239.	4.5	53
157	Observation and Identification of a New OH Stretch Vibrational Band at the Surface of Ice. Journal of Physical Chemistry Letters, 2017, 8, 3656-3660.	2.1	53
158	Conductivity of solvated electrons in hexane investigated with terahertz time-domain spectroscopy. Journal of Chemical Physics, 2004, 121, 394.	1.2	52
159	Ultrafast Terahertz Photoconductivity of Photovoltaic Polymerâ€“Fullerene Blends: A Comparative Study Correlated with Photovoltaic Device Performance. Journal of Physical Chemistry Letters, 2014, 5, 3662-3668.	2.1	52
160	Reversible Activation of a Cell-Penetrating Peptide in a Membrane Environment. Journal of the American Chemical Society, 2015, 137, 12199-12202.	6.6	52
161	Surface-charge-induced orientation of interfacial water suppresses heterogeneous ice nucleation on <i>Î±</i>-alumina (0001). Atmospheric Chemistry and Physics, 2017, 17, 7827-7837.	1.9	52
162	Synthesis of Nonplanar Graphene Nanoribbon with Fjord Edges. Journal of the American Chemical Society, 2021, 143, 5654-5658.	6.6	52

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163	Electrical tunability of terahertz nonlinearity in graphene. Science Advances, 2021, 7, .	4.7	52
164	Redoxâ€Active Metaphosphateâ€Like Terminals Enable Highâ€Capacity MXene Anodes for Ultrafast Naâ€Ion Storage. Advanced Materials, 2022, 34, e2108682.	11.1	52
165	Real time chemical dynamics at surfaces. Surface Science, 2002, 500, 475-499.	0.8	51
166	Ultrafast energy flow in model biological membranes. New Journal of Physics, 2007, 9, 390-390.	1.2	51
167	Bottom-Up, On-Surface-Synthesized Armchair Graphene Nanoribbons for Ultra-High-Power Micro-Supercapacitors. Journal of the American Chemical Society, 2020, 142, 17881-17886.	6.6	51
168	A Curved Graphene Nanoribbon with Multi-Edge Structure and High Intrinsic Charge Carrier Mobility. Journal of the American Chemical Society, 2020, 142, 18293-18298.	6.6	50
169	Vibrational couplings and energy transfer pathways of waterâ€™s bending mode. Nature Communications, 2020, 11, 5977.	5.8	50
170	Near shot-noise limited hyperspectral stimulated Raman scattering spectroscopy using low energy lasers and a fast CMOS array. Optics Express, 2013, 21, 15113.	1.7	49
171	Orientational Distribution of Free O-H Groups of Interfacial Water is Exponential. Physical Review Letters, 2018, 121, 246101.	2.9	49
172	Hydration strongly affects the molecular and electronic structure of membrane phospholipids. Journal of Chemical Physics, 2012, 136, 114709.	1.2	48
173	Density-dependent electron scattering in photoexcited GaAs in strongly diffusive regime. Applied Physics Letters, 2013, 102, 231120.	1.5	48
174	Enhanced Kinetics of Hole Transfer and Electrocatalysis during Photocatalytic Oxygen Evolution by Cocatalyst Tuning. ACS Catalysis, 2016, 6, 4117-4126.	5.5	48
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