

Shoichi Yamaguchi

List of Publications by Year in descending order

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94269

37
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98622

67
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105
all docs

105
docs citations

105
times ranked

2609
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct evidence for orientational flip-flop of water molecules at charged interfaces: A heterodyne-detected vibrational sum frequency generation study. <i>Journal of Chemical Physics</i> , 2009, 130, 204704.	1.2	432
2	Structure and Dynamics of Interfacial Water Studied by Heterodyne-Detected Vibrational Sum-Frequency Generation. <i>Annual Review of Physical Chemistry</i> , 2013, 64, 579-603.	4.8	264
3	Three Distinct Water Structures at a Zwitterionic Lipid/Water Interface Revealed by Heterodyne-Detected Vibrational Sum Frequency Generation. <i>Journal of the American Chemical Society</i> , 2012, 134, 7842-7850.	6.6	250
4	Unified Molecular View of the Air/Water Interface Based on Experimental and Theoretical $\tilde{\chi}^{(2)}$ Spectra of an Isotopically Diluted Water Surface. <i>Journal of the American Chemical Society</i> , 2011, 133, 16875-16880.	6.6	245
5	Structure and Orientation of Water at Charged Lipid Monolayer/Water Interfaces Probed by Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Journal of the American Chemical Society</i> , 2010, 132, 10656-10657.	6.6	212
6	Heterodyne-detected electronic sum frequency generation: \uparrow versus \downarrow alignment of interfacial molecules. <i>Journal of Chemical Physics</i> , 2008, 129, 101102.	1.2	167
7	Counterion Effect on Interfacial Water at Charged Interfaces and Its Relevance to the Hofmeister Series. <i>Journal of the American Chemical Society</i> , 2014, 136, 6155-6158.	6.6	159
8	Ultrafast Dynamics at Water Interfaces Studied by Vibrational Sum Frequency Generation Spectroscopy. <i>Chemical Reviews</i> , 2017, 117, 10665-10693.	23.0	153
9	Water Hydrogen Bond Structure near Highly Charged Interfaces Is Not Like Ice. <i>Journal of the American Chemical Society</i> , 2010, 132, 6867-6869.	6.6	152
10	Accurate determination of complex $\tilde{\chi}^{(2)}$ spectrum of the air/water interface. <i>Journal of Chemical Physics</i> , 2015, 143, 124707.	1.2	149
11	Water Structure at the Buried Silica/Aqueous Interface Studied by Heterodyne-Detected Vibrational Sum-Frequency Generation. <i>Journal of Physical Chemistry C</i> , 2016, 120, 9357-9363.	1.5	115
12	Ultrafast vibrational dynamics of water at a charged interface revealed by two-dimensional heterodyne-detected vibrational sum frequency generation. <i>Journal of Chemical Physics</i> , 2012, 137, 094706.	1.2	110
13	Development of single-channel heterodyne-detected sum frequency generation spectroscopy and its application to the water/vapor interface. <i>Journal of Chemical Physics</i> , 2015, 143, 034202.	1.2	107
14	Convenient Method of Measuring the Chirp Structure of Femtosecond White-Light Continuum Pulses. <i>Applied Spectroscopy</i> , 1995, 49, 1513-1515.	1.2	98
15	Exciton Dynamics in Poly(p-Pyridyl Vinylene). <i>Physical Review Letters</i> , 1996, 76, 1513-1516.	2.9	78
16	2D heterodyne-detected sum frequency generation study on the ultrafast vibrational dynamics of H ₂ O and HOD water at charged interfaces. <i>Journal of Chemical Physics</i> , 2015, 142, 212431.	1.2	78
17	Femtosecond Hydrogen Bond Dynamics of Bulk-like and Bound Water at Positively and Negatively Charged Lipid Interfaces Revealed by 2D HD-VSFG Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10621-10625.	7.2	70
18	Acid-Base Equilibrium at an Aqueous Interface: pH Spectrometry by Heterodyne-Detected Electronic Sum Frequency Generation. <i>Journal of Physical Chemistry C</i> , 2011, 115, 4168-4173.	1.5	69

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19	Communication: Ultrafast vibrational dynamics of hydrogen bond network terminated at the air/water interface: A two-dimensional heterodyne-detected vibrational sum frequency generation study. <i>Journal of Chemical Physics</i> , 2013, 139, 161101.	1.2	68
20	Electric quadrupole contribution to the nonresonant background of sum frequency generation at air/liquid interfaces. <i>Journal of Chemical Physics</i> , 2011, 134, 184705.	1.2	66
21	Weakly Hydrogen-Bonded Water Inside Charged Lipid Monolayer Observed with Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 2173-2180.	1.5	66
22	Femtosecond ultraviolet-visible absorption study of all-trans \rightarrow 13-cis \leftarrow 9-cis photoisomerization of retinal. <i>Journal of Chemical Physics</i> , 1998, 109, 1397-1408.	1.2	63
23	Precise Electronic $\ddot{\nu}(2)$ Spectra of Molecules Adsorbed at an Interface Measured by Multiplex Sum Frequency Generation. <i>Journal of Physical Chemistry B</i> , 2004, 108, 19079-19082.	1.2	63
24	Communication: Quantitative estimate of the water surface pH using heterodyne-detected electronic sum frequency generation. <i>Journal of Chemical Physics</i> , 2012, 137, 151101.	1.2	61
25	Ultrafast Vibrational Dynamics of a Charged Aqueous Interface by Femtosecond Time-Resolved Heterodyne-Detected Vibrational Sum Frequency Generation. <i>Bulletin of the Chemical Society of Japan</i> , 2012, 85, 758-760.	2.0	54
26	Bend Vibration of Surface Water Investigated by Heterodyne-Detected Sum Frequency Generation and Theoretical Study: Dominant Role of Quadrupole. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2597-2601.	2.1	53
27	Evaluation of pH at Charged Lipid/Water Interfaces by Heterodyne-Detected Electronic Sum Frequency Generation. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 762-766.	2.1	52
28	Partially Hydrated Electrons at the Air/Water Interface Observed by UV-Excited Time-Resolved Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Journal of the American Chemical Society</i> , 2016, 138, 7551-7557.	6.6	48
29	Hidden Electronic Excited State of Enhanced Green Fluorescent Protein. <i>Journal of Physical Chemistry B</i> , 2008, 112, 2761-2763.	1.2	47
30	Femtosecond time-resolved electronic sum-frequency generation spectroscopy: A new method to investigate ultrafast dynamics at liquid interfaces. <i>Journal of Chemical Physics</i> , 2008, 128, 114715.	1.2	47
31	Vibrational Sum Frequency Generation by the Quadrupolar Mechanism at the Nonpolar Benzene/Air Interface. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1654-1658.	2.1	47
32	Construction of a transform-limited picosecond time-resolved Raman spectrometer. <i>Review of Scientific Instruments</i> , 1993, 64, 2140-2146.	0.6	45
33	Efficient Spectral Diffusion at the Air/Water Interface Revealed by Femtosecond Time-Resolved Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1811-1815.	2.1	45
34	Ultrafast vibrational relaxation in photogenerated S1 $\hat{\nu}$ -terthiophene in solution by femtosecond time-resolved absorption/emission and picosecond time-resolved Raman spectroscopy. <i>Chemical Physics Letters</i> , 1994, 227, 255-260.	1.2	44
35	Primary Process of Photocarrier Generation in Y-Form Titanyl Phthalocyanine Studied by Electric-Field-Modulated Picosecond Time-Resolved Fluorescence Spectroscopy. <i>Journal of Physical Chemistry B</i> , 1999, 103, 6835-6838.	1.2	42
36	Ultrafast dynamics of malachite green at the air/water interface studied by femtosecond time-resolved electronic sum frequency generation (TR-ESFG): an indicator for local viscosity. <i>Faraday Discussions</i> , 0, 145, 411-428.	1.6	40

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37	Cooperative Hydrogen-Bond Dynamics at a Zwitterionic Lipid/Water Interface Revealed by 2D HD-VSFG Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5160-5165.	2.1	40
38	Development of Electronic Sum Frequency Generation Spectroscopies and Their Application to Liquid Interfaces. <i>Journal of Physical Chemistry C</i> , 2015, 119, 14815-14828.	1.5	39
39	Two-photon absorption spectrum of all-trans retinal. <i>Chemical Physics Letters</i> , 2003, 376, 237-243.	1.2	35
40	Determining electronic spectra at interfaces by electronic sum frequency generation: One- and two-photon double resonant oxazine 750 at the air/water interface. <i>Journal of Chemical Physics</i> , 2006, 125, 194711.	1.2	35
41	Primary carrier-generation process in Y-form and phase I titanyl phthalocyanines. <i>Chemical Physics Letters</i> , 2000, 323, 35-42.	1.2	34
42	Interface-Specific $\ddot{\ddagger}(4)$ Coherent Raman Spectroscopy in the Frequency Domain. <i>Journal of Physical Chemistry B</i> , 2005, 109, 24211-24214.	1.2	33
43	Different Molecules Experience Different Polarities at the Air/Water Interface. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 6439-6442.	7.2	33
44	Formation and Dissociation of Rhodamine 800 Dimers in Water: \AA Steady-State and Ultrafast Spectroscopic Study. <i>Journal of Physical Chemistry A</i> , 2006, 110, 2601-2606.	1.1	31
45	Interfacial water in the vicinity of a positively charged interface studied by steady-state and time-resolved heterodyne-detected vibrational sum frequency generation. <i>Journal of Chemical Physics</i> , 2014, 141, 18C527.	1.2	30
46	Progress in phase-sensitive sum frequency generation spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 18253-18267.	1.3	30
47	New Insight into the Surface Denaturation of Proteins: Electronic Sum Frequency Generation Study of Cytochrome c at Water Interfaces. <i>Journal of Physical Chemistry B</i> , 2008, 112, 13473-13475.	1.2	28
48	Proton Order toward the Surface of Ice $\langle h \rangle$ Revealed by Heterodyne-Detected Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5031-5034.	2.1	28
49	Molecules at the Air/Water Interface Experience a More Inhomogeneous Solvation Environment than in Bulk Solvents: A Quantitative Band Shape Analysis of Interfacial Electronic Spectra Obtained by HD-ESFG. <i>Journal of Physical Chemistry C</i> , 2011, 115, 3083-3089.	1.5	27
50	Vibrational Coupling at the Topmost Surface of Water Revealed by Heterodyne-Detected Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1396-1401.	2.1	26
51	Two-Photon Infrared Resonance Can Enhance Coherent Raman Scattering. <i>Physical Review Letters</i> , 2018, 120, 063602.	2.9	25
52	Relaxation Dynamics of the Hydrated Electron: \AA Femtosecond Time-Resolved Resonance Raman and Luminescence Study. <i>Journal of Physical Chemistry A</i> , 2005, 109, 5257-5265.	1.1	24
53	Physisorption Gives Narrower Orientational Distribution than Chemisorption on a Glass Surface: A Polarization-Sensitive Linear and Nonlinear Optical Study. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2662-2665.	2.1	24
54	Ultrafast Electronic Relaxation and Hydrogen-Bond-Formation/Dissociation Dynamics of Photoexcited All-trans Retinal in Protic Solvents. <i>Journal of Physical Chemistry A</i> , 2000, 104, 4272-4279.	1.1	23

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55	<i>i>I</i> ⁽⁴⁾ Raman Spectroscopy for Buried Water Interfaces. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 7609-7612.	7.2	23
56	Half-hydration at the air/water interface revealed by heterodyne-detected electronic sum frequency generation spectroscopy, polarization second harmonic generation, and molecular dynamics simulation. <i>Journal of Chemical Physics</i> , 2010, 132, 144701.	1.2	23
57	Comment on Phase-sensitive sum frequency vibrational spectroscopic study of air/water interfaces: H ₂ O, D ₂ O, and diluted isotopic mixtures. <i>J. Chem. Phys.</i> 150, 144701 (2019). <i>Journal of Chemical Physics</i> , 2020, 152, 237101.	1.2	21
58	Femtosecond time-resolved absorption spectroscopy of all-trans-retinal in hexane. <i>Journal of Molecular Structure</i> , 1996, 379, 87-92.	1.8	20
59	Resolving the Controversy over Dipole versus Quadrupole Mechanism of Bend Vibration of Water in Vibrational Sum Frequency Generation Spectra. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9123-9130.	2.1	20
60	Novel interface-selective even-order nonlinear spectroscopy. <i>Laser and Photonics Reviews</i> , 2008, 2, 74-82.	4.4	19
61	Computational analysis of the quadrupole contribution in the second-harmonic generation spectroscopy for the water/vapor interface. <i>Journal of Chemical Physics</i> , 2013, 138, 064704.	1.2	17
62	Perspective on sum frequency generation spectroscopy of ice surfaces and interfaces. <i>Chemical Physics</i> , 2019, 522, 199-210.	0.9	16
63	Heterodyne-Detected Sum Frequency Generation Spectroscopic Study of Weakly Hydrogen-Bonded Water at Charged Lipid Interfaces, Revisited. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23483-23489.	1.5	16
64	Up versus down alignment and hydration structures of solutes at the air/water interface revealed by heterodyne-detected electronic sum frequency generation with classical molecular dynamics simulation. <i>Journal of Chemical Physics</i> , 2011, 135, 194705.	1.2	15
65	Comment on Phase reference in phase-sensitive sum-frequency vibrational spectroscopy. <i>J. Chem. Phys.</i> 144, 244711 (2016). <i>Journal of Chemical Physics</i> , 2016, 145, 167101.	1.2	15
66	Quantifying the Diffusion of Lipids in the Proximal/Distal Leaflets of a Supported Lipid Bilayer by Two-Dimensional Fluorescence Lifetime Correlation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2018, 122, 10315-10319.	1.2	15
67	Agreement between Experimentally and Theoretically Estimated Orientational Distributions of Solutes at the Air/Water Interface. <i>Journal of Physical Chemistry C</i> , 2013, 117, 8887-8891.	1.5	13
68	Coherent acoustic phonons in a thin gold film probed by femtosecond surface plasmon resonance. <i>Journal of Raman Spectroscopy</i> , 2008, 39, 1703-1706.	1.2	12
69	Hydrogen order at the surface of ice Ih revealed by vibrational spectroscopy. <i>Chemical Communications</i> , 2020, 56, 4563-4566.	2.2	12
70	Quadrupolar mechanism for vibrational sum frequency generation at air/liquid interfaces: Theory and experiment. <i>Journal of Chemical Physics</i> , 2019, 151, 064701.	1.2	11
71	Effect of Water on Primary Photocarrier-Generation Process in Y-form Titanyl Phthalocyanine. <i>Journal of Physical Chemistry B</i> , 2000, 104, 9225-9229.	1.2	10
72	Spectroscopic determination of very low quantum yield of singlet oxygen formation photosensitized by industrial dyes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2001, 142, 47-50.	2.0	10

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73	Femtosecond visible absorption study of excited-state dynamics of 9-cis retinal. <i>Chemical Physics Letters</i> , 1998, 287, 694-700.	1.2	9
74	Host to Guest Energy Transfer in a Self-assembled Supramolecular Nanocage Observed by Picosecond Fluorescence Quenching. <i>Chemistry Letters</i> , 2005, 34, 618-619.	0.7	9
75	Total Internal Reflection Two-Dimensional Fluorescence Lifetime Correlation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2018, 122, 5758-5764.	1.2	9
76	Observation of an optically forbidden state of C60 by nondegenerate two-photon absorption spectroscopy. <i>Chemical Physics Letters</i> , 2004, 390, 136-139.	1.2	8
77	Communication: Development of standing evanescent-wave fluorescence correlation spectroscopy and its application to the lateral diffusion of lipids in a supported lipid bilayer. <i>Journal of Chemical Physics</i> , 2017, 147, 041101.	1.2	8
78	Structure of water and polymer at the buried polymer/water interface unveiled using heterodyne-detected vibrational sum frequency generation. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 16527-16531.	1.3	8
79	DNA-Induced Reorganization of Water at Model Membrane Interfaces Investigated by Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2022, 126, 840-846.	1.2	7
80	Femtosecond Hydrogen Bond Dynamics of Bulk-like and Bound Water at Positively and Negatively Charged Lipid Interfaces Revealed by 2D HD-VSFG Spectroscopy. <i>Angewandte Chemie</i> , 2016, 128, 10779-10783.	1.6	6
81	Two-Dimensional Fluorescence Lifetime Correlation Spectroscopy: Concepts and Applications. <i>Molecules</i> , 2018, 23, 2972.	1.7	6
82	Effect of electrostatic interaction on the leaflet-specific diffusion in a supported lipid bilayer revealed by fluorescence lifetime correlation analysis. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 1242-1249.	1.3	6
83	Raman spectroscopy of isotopically pure and diluted high- and low-density amorphous ices. <i>Journal of Raman Spectroscopy</i> , 2022, 53, 1773-1784.	1.2	6
84	Local pH at the surface of hen egg white lysozyme. <i>Chemical Physics Letters</i> , 2018, 693, 165-169.	1.2	5
85	Reduction of glass-surface charge density slows the lipid diffusion in the proximal leaflet of a supported lipid bilayer. <i>Journal of Chemical Physics</i> , 2019, 151, 025102.	1.2	5
86	Leaflet-specific Lipid Diffusion Revealed by Fluorescence Lifetime Correlation Analyses. <i>Chemistry Letters</i> , 2020, 49, 1473-1480.	0.7	5
87	Anomalous effective polarity of an air/liquid-mixture interface: a heterodyne-detected electronic and vibrational sum frequency generation study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23720-23723.	1.3	4
88	Two Distinct Solvated Structures of Para-Nitroaniline in Acetonitrile and Their Dissociation and Reassociation Dynamics. <i>Laser Chemistry</i> , 1999, 19, 329-333.	0.5	2
89	Construction of Electric-Field-Modulated Picosecond Time-Resolved Fluorescence Spectrometer. <i>Japanese Journal of Applied Physics</i> , 2000, 39, 6107-6108.	0.8	1
90	Novel Interface-Selective Even-Order Nonlinear Spectroscopy. <i>Review of Polarography</i> , 2009, 55, 83-96.	0.0	1

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91	<title>Water effect on primary photocarrier generation process in Y-form titanyl phthalocyanine</title> . , 2000, 4110, 337.		0
92	New Interface-Selective Even-Order Nonlinear Spectroscopy. , 2007, , .		0
93	Fluorescence Mechanism of Fluorescent Proteins Studied by Advanced Molecular Spectroscopy Using Ultrashort Pulse Laser. The Review of Laser Engineering, 2009, 37, 734-738.	0.0	0
94	Title is missing!. Electrochemistry, 2014, 82, 766-770.	0.6	0
95	Ultrafast Vibrational Dynamics of Water Interfaces Revealed by Time-Resolved Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. Hyomen Kagaku, 2014, 35, 662-667.	0.0	0
96	Femtosecond Ultrafast Water Dynamics at Charged Lipid Interfaces Revealed by 2D Heterodyne-Detected Vibrational Sum Frequency Generation. , 2016, , .		0
97	Multiplex Electronic Sum Frequency Generation Spectroscopy of Dye Molecules at the Air/Water Interface. , 2006, , 245-248.		0
98	Novel Interface-selective Even-order Nonlinear Spectroscopy. Hyomen Kagaku, 2007, 28, 682-687.	0.0	0
99	New Even-Order Nonlinear Spectroscopy to Study Soft Interfaces. Journal of the Spectroscopical Society of Japan, 2008, 57, 168-178.	0.0	0
100	Ultrafast vibrational dynamics of water at a zwitterionic lipid/water interface revealed by two-dimensional heterodyne-detected vibrational sum frequency generation (2D HD-VSFG). , 2014, , .		0