

Satoshi Nihonyanagi

List of Publications by Year in descending order

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papers

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citations

136950

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docs citations

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2317
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.	3.0	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.	10.8	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.	13.7	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.	13.7	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.	13.7	212
6	Sum frequency generation (SFG) study of the pH-dependent water structure on a fused quartz surface modified by an octadecyltrichlorosilane (OTS) monolayer. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 3463-3469.	2.8	171
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.	13.7	159
8	Ultrafast Dynamics at Water Interfaces Studied by Vibrational Sum Frequency Generation Spectroscopy. <i>Chemical Reviews</i> , 2017, 117, 10665-10693.	47.7	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.	13.7	152
10	Accurate determination of complex $\tilde{\chi}^{(2)}$ spectrum of the air/water interface. <i>Journal of Chemical Physics</i> , 2015, 143, 124707.	3.0	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.	3.1	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.	3.0	110
13	Interfacial Water Structure at As-Prepared and UV-Induced Hydrophilic TiO ₂ Surfaces Studied by Sum Frequency Generation Spectroscopy and Quartz Crystal Microbalance. <i>Journal of Physical Chemistry B</i> , 2004, 108, 19086-19088.	2.6	104
14	Potential-dependent structure of the interfacial water on the gold electrode. <i>Surface Science</i> , 2004, 573, 11-16.	1.9	88
15	The photochemical reaction of phenol becomes ultrafast at the air-water interface. <i>Nature Chemistry</i> , 2021, 13, 306-311.	13.6	86
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.	3.0	78
17	The Topmost Water Structure at a Charged Silica/Aqueous Interface Revealed by Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4109-4114.	4.6	76
18	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.	13.8	70

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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.	3.0	68
20	Decomposition Processes of an Organic Monolayer Formed on Si(111) via a SiliconCarbon Bond Induced by Exposure to UV Irradiation or Ozone. <i>Langmuir</i> , 2004, 20, 1207-1212.	3.5	55
21	Linking Surface Potential and Deprotonation in Nanoporous Silica: Second Harmonic Generation and Acid/Base Titration. <i>Journal of Physical Chemistry C</i> , 2010, 114, 18465-18473.	3.1	55
22	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.	3.2	54
23	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.	4.6	53
24	Evidence for Epitaxial Arrangement and High Conformational Order of an Organic Monolayer on Si(111) by Sum Frequency Generation Spectroscopy. <i>Journal of the American Chemical Society</i> , 2004, 126, 7034-7040.	13.7	52
25	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.	13.7	48
26	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.	4.6	47
27	Sum frequency generation study on the molecular structures at the interfaces between quartz modified with amino-terminated self-assembled monolayer and electrolyte solutions of various pH and ionic strengths. <i>Electrochimica Acta</i> , 2001, 46, 3057-3061.	5.2	46
28	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.	4.6	45
29	Stability of the Si-H bond on the hydrogen-terminated Si(111) surface studied by sum frequency generation. <i>Surface Science</i> , 2001, 476, 121-128.	1.9	41
30	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.	4.6	40
31	Observation of the Bending Mode of Interfacial Water at Silica Surfaces by Near-Infrared Vibrational Sum-Frequency Generation Spectroscopy of the [Stretch + Bend] Combination Bands. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 531-535.	4.6	35
32	Structure at the air/water interface in the presence of phenol: a study using heterodyne-detected vibrational sum frequency generation and molecular dynamics simulation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 3002-3009.	2.8	34
33	Ultrafast vibrational dynamics and spectroscopy of a siloxane self-assembled monolayer. <i>Journal of Chemical Physics</i> , 2011, 134, 084701.	3.0	33
34	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.	3.0	30
35	Change of the isoelectric point of hemoglobin at the air/water interface probed by the orientational flip-flop of water molecules. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 10292-10300.	2.8	30
36	Reorientation-induced relaxation of free OH at the air/water interface revealed by ultrafast heterodyne-detected nonlinear spectroscopy. <i>Nature Communications</i> , 2020, 11, 5344.	12.8	27

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37	Interfacial Molecular Structures of Polyelectrolyte Brush in Contact with Dry Nitrogen, Water Vapor, Liquid Water, and Aqueous Electrolyte Solution Studied by Sum Frequency Generation Spectroscopy. <i>Journal of the American Chemical Society</i> , 2010, 132, 17271-17276.	13.7	25
38	Effect of Frequency-Dependent Fresnel Factor on the Vibrational Sum Frequency Generation Spectra for Liquid/Solid Interfaces. <i>Journal of Physical Chemistry C</i> , 2019, 123, 15665-15673.	3.1	25
39	<i>In situ</i> observation of the potential-dependent structure of an electrolyte/electrode interface by heterodyne-detected vibrational sum frequency generation. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 2580-2589.	2.8	23
40	Formation of Organic Monolayer on a Hydrogen Terminated Si(111) Surface via Silicon-Carbon Bond Monitored by ATR FT-IR and SFG Spectroscopy: Effect of Orientational Order on the Reaction Rate. <i>Chemistry Letters</i> , 2002, 31, 208-209.	1.3	22
41	pH-Dependent Water Structure at a Quartz Surface Modified with an Amino-Terminated Monolayer Studied by Sum Frequency Generation (SFG). <i>Chemistry Letters</i> , 2000, 29, 734-735.	1.3	21
42	Comment on "Phase-sensitive sum frequency vibrational spectroscopic study of air/water interfaces: H ₂ O, D ₂ O, and diluted isotopic mixtures" [J. Chem. Phys. 150, 144701 (2019)]. <i>Journal of Chemical Physics</i> , 2020, 152, 237101.	3.0	21
43	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.	4.6	20
44	Self-Assembled Monolayer Compatible with Metal Surface Acoustic Wave Devices on Lithium Niobate. <i>Langmuir</i> , 2008, 24, 5161-5165.	3.5	19
45	Molecular mechanism of charge inversion revealed by polar orientation of interfacial water molecules: A heterodyne-detected vibrational sum frequency generation study. <i>Journal of Chemical Physics</i> , 2018, 149, 024703.	3.0	19
46	Effect of hydrogen-bond on ultrafast spectral diffusion dynamics of water at charged monolayer interfaces. <i>Journal of Chemical Physics</i> , 2019, 150, 054705.	3.0	16
47	Spectroscopy and Dynamics of the Multiple Free OH Species at an Aqueous/Hydrophobic Interface. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21734-21741.	3.1	15
48	Preferred orientations of organic cations at lead-halide perovskite interfaces revealed using vibrational sum-frequency spectroscopy. <i>Materials Horizons</i> , 2020, 7, 1348-1357.	12.2	15
49	Water Orientation at Ceramide/Water Interfaces Studied by Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy and Molecular Dynamics Simulation. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23692-23697.	3.1	12
50	Quadrupolar mechanism for vibrational sum frequency generation at air/liquid interfaces: Theory and experiment. <i>Journal of Chemical Physics</i> , 2019, 151, 064701.	3.0	11
51	Hidden Isolated OH at the Charged Hydrophobic Interface Revealed by Two-Dimensional Heterodyne-Detected VSFG Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9498-9505.	13.8	11
52	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.	2.8	8
53	In-situ Referencing Method for Heterodyne-detected Vibrational Sum Frequency Generation Measurements at Liquid/Metal Interfaces. <i>Chemistry Letters</i> , 2019, 48, 1387-1390.	1.3	7
54	Ultrafast Vibrational Dynamics at Aqueous Interfaces Studied by 2D Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Springer Series in Optical Sciences</i> , 2019, , 215-236.	0.7	7

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55	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.	2.6	7
56	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.	2.0	6
57	Ultrafast vibrational dynamics of the free OD at the air/water interface: Negligible isotopic dilution effect but large isotope substitution effect. <i>Journal of Chemical Physics</i> , 2022, 156, .	3.0	6
58	Novel Interface-Selective Even-Order Nonlinear Spectroscopy. <i>Review of Polarography</i> , 2009, 55, 83-96.	0.1	1
59	Hidden Isolated OH at the Charged Hydrophobic Interface Revealed by Two-Dimensional Heterodyne-Detected VSFG Spectroscopy. <i>Angewandte Chemie</i> , 2020, 132, 9585-9592.	2.0	1
60	Title is missing!. <i>Electrochemistry</i> , 2014, 82, 766-770.	1.4	0
61	Ultrafast Vibrational Dynamics of Water Interfaces Revealed by Time-Resolved Heterodyne-Detected Vibrational Sum Frequency Generation Spectroscopy. <i>Hyomen Kagaku</i> , 2014, 35, 662-667.	0.0	0
62	Femtosecond Ultrafast Water Dynamics at Charged Lipid Interfaces Revealed by 2D Heterodyne-Detected Vibrational Sum Frequency Generation. , 2016, , .		0
63	Vibrational Sum Frequency Generation Spectroscopy. , 2018, , 801-807.		0
64	InnenrÃ¼cktitelbild: Hidden Isolated OH at the Charged Hydrophobic Interface Revealed by Two-Dimensional Heterodyne-Detected VSFG Spectroscopy (Angew. Chem. 24/2020). <i>Angewandte Chemie</i> , 2020, 132, 9867-9867.	2.0	0
65	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
66	Vibrational relaxation of water at the air/H ₂ O interface revealed by time-resolved heterodyne-detected vibrational sum-frequency generation in the OH stretch hot-band region. , 2020, , .		0
67	Probing Ultrafast Photochemical Reaction at Water Surface by Heterodyne-Detected Vibrational Sum Frequency Generation. , 2020, , .		0
68	'Just Vibing': Coupled Organic and Inorganic Sublattices in Organohalide Perovskite Solar Cells. , 0, , .		0