Tetsuya Hama

List of Publications by Year
in descending order

73	2,008	236925 25	265206 42
papers	citations	h-index	g-index

73	73	73	1501
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Misaligned Rotations of the Envelope, Outflow, and Disks in the Multiple Protostellar System of VLA 1623â€“2417: FAUST. III. Astrophysical Journal, 2022, 927, 54.	4.5	7
2	Low- and High-Density Unknown Waters at Iceâ€“Water Interfaces. Journal of Physical Chemistry Letters, 2022, 13, 4251-4256.	4.6	4
3	Infrared multipleâ€angle incidence resolution spectrometry for vaporâ€deposited amorphous water. Journal of Raman Spectroscopy, 2022, 53, 1748-1772.	2.5	3
4	FAUST. II. Discovery of a Secondary Outflow in IRAS 15398â˜3359: Variability in Outflow Direction during the Earliest Stage of Star Formation?. Astrophysical Journal, 2021, 910, 11.	4.5	19
5	Formation of chiral CO polyhedral crystals on icy interstellar grains. Monthly Notices of the Royal Astronomical Society, 2021, 505, 1530-1542.	4.4	13
6	Transmission Electron Microscopy Study of the Morphology of Ices Composed of H₂O, CO₂, and CO on Refractory Grains. Astrophysical Journal, 2021, 918, 45.	4.5	27
7	Absolute Absorption Cross Section and Orientation of Dangling OH Bonds in Water Ice. Astrophysical Journal Letters, 2021, 923, L3.	8.3	7
8	Interfacial Water Mediates Oligomerization Pathways of Monoterpene Carbocations. Journal of Physical Chemistry Letters, 2020, 11, 67-74.	4.6	14
9	UV-ray irradiation never causes amorphization of crystalline CO2: A transmission electron microscopy study. Chemical Physics Letters, 2020, 760, 137999.	2.6	10
10	High-Density Liquid Water at a Waterâ€“Ice Interface. Journal of Physical Chemistry Letters, 2020, 11, 6779-6784.	4.6	9
11	FAUST I. The hot corino at the heart of the prototypical Class I protostar L1551 IRS5. Monthly Notices of the Royal Astronomical Society: Letters, 2020, 498, L87-L92.	3.3	27
12	Quantitative Anisotropic Analysis of Molecular Orientation in Amorphous N₂O at 6 K by Infrared Multiple-Angle Incidence Resolution Spectrometry. Journal of Physical Chemistry Letters, 2020, 11, 7857-7866.	4.6	5
13	Photostimulated desorption of OH radicals from amorphous solid water: Evidence for the interaction of visible light with an OH-ice complex. Physical Review A, 2020, 102, .	2.5	15
14	In vivo characterization of the structures of films of a fatty acid and an alcohol adsorbed on the skin surface. Biophysical Chemistry, 2020, 266, 106459.	2.8	1
15	Precometary organic matter: A hidden reservoir of water inside the snow line. Scientific Reports, 2020, 10, 7755.	3.3	16
16	Direct Measurements of Activation Energies for Surface Diffusion of CO and CO₂ on Amorphous Solid Water Using In Situ Transmission Electron Microscopy. Astrophysical Journal Letters, 2020, 891, L22.	8.3	22
17	Acid-Catalyzed Oligomerization at the Airâ€“Water Interface Modified by Competitive Adsorption of Surfactants. Journal of Physical Chemistry C, 2019, 123, 21662-21669.	3.1	6
18	Interactions of Atomic and Molecular Hydrogen with a Diamond-like Carbon Surface: H₂ Formation and Desorption. Astrophysical Journal, 2019, 878, 23.	4.5	11

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19	Probing the Molecular Structure and Orientation of the Leaf Surface of Brassica oleracea L. by Polarization Modulation-Infrared Reflection-Absorption Spectroscopy. Plant and Cell Physiology, 2019, 60, 1567-1580.	3.1	12
20	The Surface of Ice under Equilibrium and Nonequilibrium Conditions. Accounts of Chemical Research, 2019, 52, 1006-1015.	15.6	57
21	H₂ Orthoâ€“Para Spin Conversion on Inhomogeneous Grain Surfaces. Astrophysical Journal, 2019, 882, 172.	4.5	10
22	The Ortho-to-para Ratio of Water Molecules Desorbed from Ice Made from Para-water Monomers at 11 K. Astrophysical Journal Letters, 2018, 857, L13.	8.3	26
23	Chain-propagation, chain-transfer, and hydride-abstraction by cyclic carbocations on water surfaces. Physical Chemistry Chemical Physics, 2018, 20, 25256-25267.	2.8	11
24	Immiscibility of Nucleating Aluminum Oxide Nanoparticles in Vapor. Journal of Physical Chemistry C, 2018, 122, 25092-25101.	3.1	3
25	Uptake Mechanism of Atmospheric Hydrogen Chloride Gas in Ice Crystals via Hydrochloric Acid Droplets. Crystal Growth and Design, 2018, 18, 4117-4122.	3.0	11
26	Adsorption Energies of Carbon, Nitrogen, and Oxygen Atoms on the Low-temperature Amorphous Water Ice: A Systematic Estimation from Quantum Chemistry Calculations. Astrophysical Journal, 2018, 855, 27.	4.5	43
27	Controlling factors of oligomerization at the water surface: why is isoprene such a unique VOC?. Physical Chemistry Chemical Physics, 2018, 20, 15400-15410.	2.8	15
28	Simulations and spectra of water in CO matrices. Physical Chemistry Chemical Physics, 2017, 19, 7280-7287.	2.8	1
29	Fast crystalline ice formation at extremely low temperature through water/neon matrix sublimation. Physical Chemistry Chemical Physics, 2017, 19, 17677-17684.	2.8	19
30	Self-assembly of MoO₃needles in gas current for cubic formation pathway. Nanoscale, 2017, 9, 10109-10116.	5.6	10
31	Reactive Uptake of Gaseous Sesquiterpenes on Aqueous Surfaces. Journal of Physical Chemistry A, 2017, 121, 810-818.	2.5	47
32	Hydrogenation and Deuteration of C₂H₂ and C₂H₄ on Cold Grains: A Clue to the Formation Mechanism of C₂H₆ with Astronomical Interest. Astrophysical Journal, 2017, 837, 155.	4.5	26
33	Liquid-like behavior of UV-irradiated interstellar ice analog at low temperatures. Science Advances, 2017, 3, eaao2538.	10.3	32
34	Evolution of Morphological and Physical Properties of Laboratory Interstellar Organic Residues with Ultraviolet Irradiation. Astrophysical Journal, 2017, 837, 35.	4.5	17
35	In Situ Nondestructive Analysis of Kalanchoe pinnata Leaf Surface Structure by Polarization-Modulation Infrared Reflectionâ€“Absorption Spectroscopy. Journal of Physical Chemistry B, 2017, 121, 11124-11131.	2.6	13
36	Ortho-to-para Ratio of Water Photodesorbed from Ice at 10 K and the Origin of Interstellar Water. Journal of the Vacuum Society of Japan, 2017, 60, 264-274.	0.3	1

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37	Ortho-to-para ratio of water desorbed from ice and its implications for astronomy and planetary science. Journal of Physics: Conference Series, 2017, 875, 042010.	0.4	0
38	Direct Visualization of Quasi-Liquid Layers on Ice Crystal Surfaces Induced by Hydrogen Chloride Gas. Crystal Growth and Design, 2016, 16, 2225-2230.	3.0	11
39	Surface Temperature Dependence of Hydrogen Ortho-Para Conversion on Amorphous Solid Water. Physical Review Letters, 2016, 116, 253201.	7.8	25
40	Matrix sublimation method for the formation of high-density amorphous ice. Chemical Physics Letters, 2016, 658, 287-292.	2.6	20
41	Two-Step Process in Homogeneous Nucleation of Alumina in Supersaturated Vapor. Chemistry of Materials, 2016, 28, 8732-8741.	6.7	28
42	Carboxylate Ion Availability at the Airâ€“Water Interface. Journal of Physical Chemistry A, 2016, 120, 9224-9234.	2.5	51
43	Statistical ortho-to-para ratio of water desorbed from ice at 10 kelvin. Science, 2016, 351, 65-67.	12.6	61
44	Signatures of Quantum-Tunneling Diffusion of Hydrogen Atoms on Water Ice at 10ÂK. Physical Review Letters, 2015, 115, 133201.	7.8	47
45	Quantum tunneling observed without its characteristic large kinetic isotope effects. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7438-7443.	7.1	25
46	Nanodiamond Finding in the Hyblean Shallow Mantle Xenoliths. Scientific Reports, 2015, 5, 10765.	3.3	21
47	Quantum Tunneling Hydrogenation of Solid Benzene and Its Control via Surface Structure. Journal of Physical Chemistry Letters, 2014, 5, 3843-3848.	4.6	20
48	Surface Processes on Interstellar Amorphous Solid Water: Adsorption, Diffusion, Tunneling Reactions, and Nuclear-Spin Conversion. Chemical Reviews, 2013, 113, 8783-8839.	47.7	245
49	Photochemical reaction processes during vacuum-ultraviolet irradiation of water ice. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2013, 16, 46-61.	11.6	28
50	Nuclear spin temperatures of hydrogen and water molecules on amorphous solid water. , 2013, , .		0
51	THE MECHANISM OF SURFACE DIFFUSION OF H AND D ATOMS ON AMORPHOUS SOLID WATER: EXISTENCE OF VARIOUS POTENTIAL SITES. Astrophysical Journal, 2012, 757, 185.	4.5	75
52	WATER FORMATION THROUGH A QUANTUM TUNNELING SURFACE REACTION, OH + H₂, AT 10 K. Astrophysical Journal, 2012, 749, 67.	4.5	97
53	A theoretical and experimental study on translational and internal energies of H2O and OH from the 157 nm irradiation of amorphous solid water at 90 K. Physical Chemistry Chemical Physics, 2011, 13, 15810.	2.8	16
54	Experimental studies of surface reactions among OH radicals that yield H2O and CO2 at 40â€“60 K. Physical Chemistry Chemical Physics, 2011, 13, 15792.	2.8	39

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55	Surface abundance change in vacuum ultraviolet photodissociation of CO2 and H2O mixture ices. Physical Chemistry Chemical Physics, 2011, 13, 15785.	2.8	3
56	LABORATORY STUDIES ON THE FORMATION OF FORMIC ACID (HCOOH) IN INTERSTELLAR AND COMETARY ICES. Astrophysical Journal, 2011, 727, 27.	4.5	84
57	SPIN TEMPERATURE OF WATER MOLECULES DESORBED FROM THE SURFACES OF AMORPHOUS SOLID WATER, VAPOR-DEPOSITED AND PRODUCED FROM PHOTOLYSIS OF A CH ₄ /O ₂ SOLID MIXTURE. Astrophysical Journal Letters, 2011, 738, L15.	8.3	32
58	Translational and rotational energy measurements of desorbed water molecules in their vibrational ground state following 157nm irradiation of amorphous solid water. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1011-1015.	1.4	3
59	DIRECT MEASUREMENTS OF HYDROGEN ATOM DIFFUSION AND THE SPIN TEMPERATURE OF NASCENT H ₂ MOLECULE ON AMORPHOUS SOLID WATER. Astrophysical Journal Letters, 2010, 714, L233-L237.	8.3	98
60	EXPERIMENTAL STUDY OF CO ₂ FORMATION BY SURFACE REACTIONS OF NON-ENERGETIC OH RADICALS WITH CO MOLECULES. Astrophysical Journal Letters, 2010, 712, L174-L178.	8.3	92
61	FORMATION OF CARBONIC ACID (H₂CO₃) BY SURFACE REACTIONS OF NON-ENERGETIC OH RADICALS WITH CO MOLECULES AT LOW TEMPERATURES. Astrophysical Journal, 2010, 722, 1598-1606.	4.5	50
62	A desorption mechanism of water following vacuum-ultraviolet irradiation on amorphous solid water at 90 K. Journal of Chemical Physics, 2010, 132, 164508.	3.0	40
63	Role of OH radicals in the formation of oxygen molecules following vacuum ultraviolet photodissociation of amorphous solid water. Journal of Chemical Physics, 2010, 133, 104504.	3.0	12
64	Translational and internal states of hydrogen molecules produced from the ultraviolet photodissociation of amorphous solid methanol. Journal of Chemical Physics, 2009, 130, 164505.	3.0	9
65	Formation mechanisms of oxygen atoms in the O(D21) state from the 157nm photoirradiation of amorphous water ice at 90K. Journal of Chemical Physics, 2009, 131, 114510.	3.0	19
66	TRANSLATIONAL AND ROTATIONAL ENERGY MEASUREMENTS OF PHOTODESORBED WATER MOLECULES IN THEIR VIBRATIONAL GROUND STATE FROM AMORPHOUS SOLID WATER. Astrophysical Journal, 2009, 699, L80-L83.	4.5	33
67	Formation mechanisms of oxygen atoms in the O(PJ3) state from the 157nm photoirradiation of amorphous water ice at 90K. Journal of Chemical Physics, 2009, 131, 114511.	3.0	18
68	Desorption of hydroxyl radicals in the vacuum ultraviolet photolysis of amorphous solid water at 90 K. Journal of Chemical Physics, 2009, 131, 054508.	3.0	29
69	Translational and internal energy distributions of methyl and hydroxyl radicals produced by 157nm photodissociation of amorphous solid methanol. Journal of Chemical Physics, 2009, 131, 224512.	3.0	14
70	Hydrogen peroxide formation following the vacuum ultraviolet photodissociation of water ice films at 90K. Journal of Chemical Physics, 2008, 129, 014709.	3.0	27
71	Direct Observation of OH Radicals Ejected from Water Ice Surface in the Photoirradiation of Nitrate Adsorbed on Ice at 100 K. Journal of Physical Chemistry A, 2008, 112, 9763-9766.	2.5	9
72	Release of hydrogen molecules from the photodissociation of amorphous solid water and polycrystalline ice at 157 and 193nm. Journal of Chemical Physics, 2008, 129, 044501.	3.0	29

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73	Measurements of Energy Partitioning in H ₂ Formation by Photolysis of Amorphous Water Ice. Astrophysical Journal, 2008, 682, L69-L72.	4.5	28