

Hiroyuki S Kato

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Band Engineering-Tuned Localized Surface Plasmon Resonance in Diverse-Phased Cu ₂ S Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2022, 126, 8107-8112.	1.5	3
2	A computational examination of the electric-field-induced proton transfer along the interface hydrogen bond between proton donating and accepting self-assembled monolayers. <i>Chemical Physics Letters</i> , 2020, 741, 137091.	1.2	5
3	Structural Characterization and Photoluminescence Properties of Monolayer Perylene on a Graphite Surface. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12485-12491.	1.5	7
4	Deviation from Point Dipole Analysis for Exciton Quenching in Quaterthiophene-Terminated Self-Assembled Monolayers on Au(111). <i>Journal of Physical Chemistry C</i> , 2019, 123, 16127-16136.	1.5	1
5	Direct Evidence of Interfacial Hydrogen Bonding in Proton-Electron Concerted 2D Organic Bilayer on Au Substrate. <i>E-Journal of Surface Science and Nanotechnology</i> , 2019, 17, 49-55.	0.1	5
6	Formation and regulation of unoccupied hybridized band with image potential states at perylene/graphite interface. <i>Journal of Chemical Physics</i> , 2019, 151, 224703.	1.2	4
7	Strong Hydrogen Bonds at the Interface between Proton-Donating and -Accepting Self-Assembled Monolayers on Au(111). <i>Langmuir</i> , 2018, 34, 2189-2197.	1.6	16
8	Influence of molecular distortion on the exciton quenching for quaterthiophene-terminated self-assembled monolayers on Au(111). <i>Surface Science</i> , 2018, 669, 160-168.	0.8	2
9	Direct visualization of diffuse unoccupied molecular orbitals at a rubrene/graphite interface. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 17415-17422.	1.3	7
10	Decay of the Exciton in Quaterthiophene-Terminated Alkanethiolate Self-Assembled Monolayers on Au(111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 7400-7407.	1.5	19
11	The Complex Polymorphism and Thermodynamic Behavior of a Seemingly Simple System: Naphthalene on Cu(111). <i>Langmuir</i> , 2014, 30, 14163-14170.	1.6	24
12	Spectroscopic Investigation of Unoccupied States in Nano- and Macroscopic Scale: Naphthalene Overlayers on Highly Oriented Pyrolytic Graphite Studied by Combination of Scanning Tunneling Microscopy and Two-Photon Photoemission. <i>Journal of Physical Chemistry C</i> , 2014, 118, 1035-1041.	1.5	18
13	Molecular Assembly Through the Chain Reaction of Substituted Acenes on the Si(100)-(2 × 1)-H Surface. <i>Journal of Physical Chemistry C</i> , 2013, , 130912152428004.	1.5	2
14	Diffuse Unoccupied Molecular Orbital of Rubrene Causing Image-Potential State Mediated Excitation. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20098-20103.	1.5	19
15	Substituent Effect on the Intermolecular Arrangements of One-Dimensional Molecular Assembly on the Si(100)-(2 × 1)-H Surface. <i>Journal of Physical Chemistry C</i> , 2013, 117, 270-275.	1.5	7
16	Dispersive Electronic States of the π -Orbitals Stacking in Single Molecular Lines on the Si(001)-(2 × 1)-H Surface. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1199-1204.	2.1	2
17	Atomic scale understanding of linear and perpendicular junction of molecular lines on Si(100)-H surface. , 2012, , .		0
18	Dispersions of image potential states on surfaces of clean graphite and lead phthalocyanine film. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 9601.	1.3	20

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19	Image Potential State Mediated Excitation at Rubrene/Graphite Interface. Journal of Physical Chemistry C, 2012, 116, 5821-5826.	1.5	17
20	Characterization of an Organic Field-Effect Thin-Film Transistor in Operation Using Fluorescence-Yield X-Ray Absorption Spectroscopy. Physical Review Letters, 2011, 107, 147401.	2.9	12
21	Termination and Verwey transition of the (111) surface of magnetite studied by scanning tunneling microscopy and first-principles calculations. Physical Review B, 2010, 81, .	1.1	49
22	Systematic Study of Soft X-ray Spectra of Poly(Dg)-Poly(Dc) and Poly(Da)-Poly(Dt) DNA Duplexes. Journal of Physical Chemistry B, 2010, 114, 7016-7021.	1.2	24
23	Electronic state observation of inner organic thin films beneath electrodes: Fluorescence-yield X-ray absorption spectra of pentacene derivative films. Journal of Electron Spectroscopy and Related Phenomena, 2009, 174, 93-99.	0.8	2
24	Valence States of One-Dimensional Molecular Assembly Formed by Ketone Molecules on the Si(100)-(2 Å ⁻¹) ₁₅ Surface. Journal of Physical Chemistry C, 2009, 113, 14872-14878.	1.5	15
25	Self-Activated Catalyst Layer for Partial Hydrogenation of 1,3-Butadiene on a Hydrogen-Precovered Pd(110) Surface. Journal of Physical Chemistry C, 2009, 113, 14872-14878.	1.5	11
26	The electronic structure of oxygen atom vacancy and hydroxyl impurity defects on titanium dioxide (110) surface. Journal of Chemical Physics, 2009, 130, 124502.	1.2	197
27	Partial Hydrogenation of 1,3-Butadiene on Hydrogen-Precovered Pd(110) in the Balance of H-Bonded C ₄ Hydrocarbon Reactions. Journal of Physical Chemistry C, 2008, 112, 17219-17224.	1.5	11
28	Self-Directed Chain Reaction by Small Ketones with the Dangling Bond Site on the Si(100)-(2 Å ⁻¹) ₁₅ -H Surface: Acetophenone, A Unique Example. Journal of the American Chemical Society, 2008, 130, 11518-11523.	6.6	50
29	Long-Range Proton Transport for the Water Reaction on Si(001): Study of Hydrogen-Bonded Systems with a Model Liquid-solid Interface. Journal of Physical Chemistry C, 2008, 112, 12879-12886.	1.5	14
30	Deposition and crystallization studies of thin amorphous solid water films on Ru(0001) and on CO-precovered Ru(0001). Journal of Chemical Physics, 2007, 127, 094703.	1.2	42
31	Morphological change during crystallization of thin amorphous solid water films on Ru(0001). Journal of Chemical Physics, 2007, 126, 181103.	1.2	29
32	Electronic states of the DNA polynucleotides poly(dG)-poly(dC) in the presence of iodine. Physical Review B, 2007, 75, .	1.1	16
33	First-principles calculations of hydrogen diffusion on rutile TiO ₂ (110) surfaces. Journal of Chemical Physics, 2007, 127, 104709.	1.2	41
34	Selective Chain Reaction of Acetone Leading to the Successive Growth of Mutually Perpendicular Molecular Lines on the Si(100)-(2 Å ⁻¹) ₁₅ -H Surface. Journal of the American Chemical Society, 2007, 129, 12304-12309.	6.6	36
35	Competing Forward and Reversed Chain Reactions in One-Dimensional Molecular Line Growth on the Si(100)-(2 Å ⁻¹) ₁₅ -H Surface. Journal of the American Chemical Society, 2007, 129, 3328-3332.	6.6	43
36	Different Adsorbed States of 1,4-Cyclohexadiene on Si(001) Controlled by Substrate Temperature. Journal of Physical Chemistry C, 2007, 111, 2557-2564.	1.5	12

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37	The distinct vibrational signature of grain-boundary water in nano-crystalline ice films. <i>Chemical Physics Letters</i> , 2007, 448, 121-126.	1.2	9
38	Adsorption of Unsaturated Hydrocarbon Moieties on H:Si(111) by Grignard Reaction. <i>Journal of Physical Chemistry B</i> , 2006, 110, 7357-7366.	1.2	15
39	Photoassisted Adsorption of Allylamine and 1-Butene on H:Si(111) Studied by Surface Vibrational Spectroscopies. <i>Journal of Physical Chemistry B</i> , 2006, 110, 6740-6749.	1.2	21
40	Surface Structure and Interface Dynamics of Alkanethiol Self-Assembled Monolayers on Au(111). <i>Journal of Physical Chemistry B</i> , 2006, 110, 2793-2797.	1.2	105
41	Points for Debate on the Generation Mechanism of Catalytic Activity of Au/TiO ₂ -Developments of Investigation using the Model Catalysts-. <i>Hyomen Kagaku</i> , 2006, 27, 319-325.	0.0	4
42	Morphological change of D ₂ O layers on Ru(0001) probed with He atom scattering. <i>Surface Science</i> , 2006, 600, 3570-3574.	0.8	24
43	Effect of the molecular structure on the gas-surface scattering studied by supersonic molecular beam. <i>European Physical Journal D</i> , 2006, 38, 129-138.	0.6	35
44	HREELS, STM, and LEED studies of the Si(100) c(4 \times 4) surface at 100 and 300K: Formation of Si-C surface dimers. <i>Physical Review B</i> , 2006, 73, .	1.1	5
45	Analysis of the Molecular Beam Inelastic Scattering at Solid Surfaces Based on the Theoretical Model of Pure and Classical Binary Collision. <i>Hyomen Kagaku</i> , 2006, 27, 392-400.	0.0	0
46	Interaction of condensed water molecules with hydroxyl and hydrogen groups on Si(001). <i>Surface Science</i> , 2005, 587, 34-40.	0.8	19
47	Interface Control between Pentacene Film and Si(001) by Chemisorbed Buffer Monolayer. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 514-518.	0.8	6
48	Rainbow scattering of CO and N ₂ from LiF(001). <i>Journal of Chemical Physics</i> , 2005, 122, 244713.	1.2	18
49	Controlled Fabrication of 1D Molecular Lines Across the Dimer Rows on the Si(100) c(2 \times 1) H Surface through the Radical Chain Reaction. <i>Journal of the American Chemical Society</i> , 2005, 127, 15030-15031.	6.6	83
50	Fabrication of Interconnected 1D Molecular Lines along and across the Dimer Rows on the Si(100) c(2 \times 1) H Surface through the Radical Chain Reaction. <i>Journal of the American Chemical Society</i> , 2005, 127, 23129-23133.	1.2	71
51	Initial Growth of the Water Layer on (1 \times 1)-Oxygen-Covered Ru(0001) in Comparison with that on Bare Ru(0001). <i>Journal of Physical Chemistry B</i> , 2005, 109, 16024-16029.	1.2	19
52	Electronic Structure of Bases in DNA Duplexes Characterized by Resonant Photoemission Spectroscopy Near the Fermi Level. <i>Physical Review Letters</i> , 2004, 93, 086403.	2.9	33
53	C ₆ cyclic hydrocarbons adsorbed on Si(001) as an interface buffer for organic-film fabrication. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2004, 137-140, 217-221.	0.8	8
54	Investigation of the electronic interaction between TiO ₂ (110) surfaces and Au clusters by PES and STM. <i>Surface Science</i> , 2004, 566-568, 1012-1017.	0.8	99

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55	Water reaction on SrTiO ₃ (001): promotion effect due to condensation. <i>Surface Science</i> , 2003, 544, L722-L728.	0.8	22
56	Selective Partial Hydrogenation of 1,3-Butadiene to Butene on Pd(110): \hat{A} Specification of Reactant Adsorption States and Product Stability. <i>Journal of Physical Chemistry B</i> , 2003, 107, 3671-3674.	1.2	31
57	Partial Hydrogenation of 1,3-Butadiene Adsorbed on Pd(110): The Activation of Reactant by the Template Effect. <i>Shinku/Journal of the Vacuum Society of Japan</i> , 2003, 46, 203-206.	0.2	0
58	Stepwise morphological change of porous amorphous ice films observed through adsorption of methane. <i>Journal of Chemical Physics</i> , 2002, 116, 4375-4378.	1.2	34
59	Scanning Tunneling Microscopy and Near Edge X-ray Absorption Fine Structure Studies of Adsorption of Trans-2-butene on Pd(110). <i>Japanese Journal of Applied Physics</i> , 2002, 41, 4911-4915.	0.8	9
60	Electronic and Vibrational States of Cyclopentene on Si(100)(2 \hat{A} -1). <i>Journal of Physical Chemistry B</i> , 2002, 106, 1691-1696.	1.2	21
61	Surface and Adsorption Structures of Dialkyl Sulfide Self-Assembled Monolayers on Au(111). <i>Journal of Physical Chemistry B</i> , 2002, 106, 13268-13272.	1.2	56
62	An HREELS Study of Alkanethiol Self-Assembled Monolayers on Au(111). <i>Journal of Physical Chemistry B</i> , 2002, 106, 9655-9658.	1.2	105
63	Adsorption structure of 1,3-butadiene on Pd(110). <i>Surface Science</i> , 2002, 502-503, 164-168.	0.8	22
64	Estimation of direct and indirect interactions between CO molecules on Pd(110). <i>Surface Science</i> , 2002, 513, 239-248.	0.8	15
65	Investigation of 1D chain formation of CO on Pd(1 1 0) by low temperature scanning tunneling microscope. <i>Surface Science</i> , 2001, 482-485, 60-65.	0.8	2
66	Bonding and Structure of 1,4-Cyclohexadiene Chemisorbed on Si(100)(2 \hat{A} -1). <i>Journal of Physical Chemistry B</i> , 2001, 105, 3718-3723.	1.2	40
67	Lateral interactions of CO in the (2 \hat{A} -1)p2mg structure on Pd(110): Force constants between tilted CO molecules. <i>Journal of Chemical Physics</i> , 2000, 112, 1925-1936.	1.2	31
68	Orientation and symmetry of ethylene on Pd(110): A combined HREELS and NEXAFS study. <i>Journal of Chemical Physics</i> , 2000, 112, 5948-5956.	1.2	17
69	An electron energy loss spectroscopy study of resonance population in ethylene chemisorbed on Pd(110). <i>Journal of Chemical Physics</i> , 2000, 113, 2866-2872.	1.2	15
70	Photochemistry of N ₂ O on Si(100): surface photo-oxidation. <i>Surface Science</i> , 2000, 445, 209-223.	0.8	10
71	Photo-stimulated desorption of rare gas atoms induced by UV \hat{E} NIR photons at a semiconductor surface. <i>Surface Science</i> , 2000, 446, L134-L139.	0.8	8
72	Study of the adsorption structure of NO on Pt(111) by scanning tunneling microscopy and high-resolution electron energy-loss spectroscopy. <i>Surface Science</i> , 2000, 454-456, 101-105.	0.8	53

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73	Switching in the Molecular Orientation Ruled by Steric Repulsion of Adsorbed CO on Pd(110). <i>Physical Review Letters</i> , 1999, 82, 1899-1902.	2.9	36
74	Molecular rearrangement induced by hydrogen co-adsorption: C ₂ H ₄ on Pd(110). <i>Chemical Physics Letters</i> , 1999, 310, 451-458.	1.2	7
75	Determination of six types of vibrational mode for bridge CO on Pd(110). <i>Surface Science</i> , 1999, 427-428, 69-73.	0.8	17
76	Effective carbonate formation induced by thermal dissociation of N ₂ O on Si(100). <i>Surface Science</i> , 1998, 398, L297-L302.	0.8	4
77	Effective Conversion of CO ₂ to Carbonate in Surface Oxidation Processes at Si(100). <i>Journal of Physical Chemistry B</i> , 1998, 102, 8042-8048.	1.2	1
78	Adsorption-state specific photodissociation dynamics of N ₂ O on Si(100). <i>Surface Science</i> , 1997, 386, 93-100.	0.8	3
79	Adsorbed states and thermal reactions of N ₂ O on Si(100) below room temperature: desorption induced by dissociation. <i>Surface Science</i> , 1996, 351, 43-52.	0.8	15
80	Angular distributions of N ₂ in the photodissociation of N ₂ O adsorbed on a partially oxidized Si(100) surface at 95 K. <i>Chemical Physics Letters</i> , 1995, 240, 417-422.	1.2	21
81	Dynamical study of alkali promotion of NO sticking on Si(100). <i>Surface Science</i> , 1993, 283, 9-20.	0.8	5
82	A molecular beam study of alkali promotion of NO sticking on Si(100): Local promotion in a single collision regime. <i>Journal of Chemical Physics</i> , 1992, 97, 3781-3793.	1.2	24
83	Molecular beam study on scattering and sticking of molecular oxygen at Si(100). <i>Surface Science</i> , 1991, 242, 386-393.	0.8	19
84	Resonance-Enhanced Multiphoton Ionization Study of NO Scattering from a Corrugated Si(100) Surface with Oxygen Coverage. <i>Japanese Journal of Applied Physics</i> , 1991, 30, 349-355.	0.8	2
85	A Molecular Beam Study of the Trapping and Desorption of Oxygen from Si(100) Surfaces. <i>Japanese Journal of Applied Physics</i> , 1990, 29, 723-728.	0.8	10
86	Molecular-beam study of sticking of oxygen on Si(100). <i>Physical Review B</i> , 1990, 42, 11801-11807.	1.1	66