

Hiroyuki S Kato

List of Publications by Year in descending order

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86
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docs citations

86
times ranked

1977
citing authors

#	ARTICLE	IF	CITATIONS
1	The electronic structure of oxygen atom vacancy and hydroxyl impurity defects on titanium dioxide (110) surface. <i>Journal of Chemical Physics</i> , 2009, 130, 124502.	1.2	197
2	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
3	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
4	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
5	Controlled Fabrication of 1D Molecular Lines Across the Dimer Rows on the Si(100)-(2 × 1)-H Surface through the Radical Chain Reaction. <i>Journal of the American Chemical Society</i> , 2005, 127, 15030-15031.	6.6	83
6	Fabrication of Interconnected 1D Molecular Lines along and across the Dimer Rows on the Si(100)-(2 × 1)-H Surface through the Radical Chain Reaction. <i>Journal of the American Chemical Society</i> , 2005, 127, 15030-15031.	1.2	71
7	Molecular-beam study of sticking of oxygen on Si(100). <i>Physical Review B</i> , 1990, 42, 11801-11807.	1.1	66
8	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
9	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
10	Self-Directed Chain Reaction by Small Ketones with the Dangling Bond Site on the Si(100)-(2 × 1)-H Surface: Acetophenone, A Unique Example. <i>Journal of the American Chemical Society</i> , 2008, 130, 11518-11523.	6.6	50
11	Termination and Verwey transition of the (111) surface of magnetite studied by scanning tunneling microscopy and first-principles calculations. <i>Physical Review B</i> , 2010, 81, .	1.1	49
12	Competing Forward and Reversed Chain Reactions in One-Dimensional Molecular Line Growth on the Si(100)-(2 × 1)-H Surface. <i>Journal of the American Chemical Society</i> , 2007, 129, 3328-3332.	6.6	43
13	Deposition and crystallization studies of thin amorphous solid water films on Ru(0001) and on CO-precovered Ru(0001). <i>Journal of Chemical Physics</i> , 2007, 127, 094703.	1.2	42
14	First-principles calculations of hydrogen diffusion on rutile TiO ₂ (110) surfaces. <i>Journal of Chemical Physics</i> , 2007, 127, 104709.	1.2	41
15	Bonding and Structure of 1,4-Cyclohexadiene Chemisorbed on Si(100)-(2 × 1)-H Surface. <i>Journal of Physical Chemistry B</i> , 2001, 105, 3718-3723.	1.2	40
16	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
17	Selective Chain Reaction of Acetone Leading to the Successive Growth of Mutually Perpendicular Molecular Lines on the Si(100)-(2 × 1)-H Surface. <i>Journal of the American Chemical Society</i> , 2007, 129, 12304-12309.	6.6	36
18	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

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19	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
20	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
21	Lateral interactions of CO in the (2 \times 1) structure on Pd(110): Force constants between tilted CO molecules. <i>Journal of Chemical Physics</i> , 2000, 112, 1925-1936.	1.2	31
22	Selective Partial Hydrogenation of 1,3-Butadiene to Butene on Pd(110): Specification of Reactant Adsorption States and Product Stability. <i>Journal of Physical Chemistry B</i> , 2003, 107, 3671-3674.	1.2	31
23	Morphological change during crystallization of thin amorphous solid water films on Ru(0001). <i>Journal of Chemical Physics</i> , 2007, 126, 181103.	1.2	29
24	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
25	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
26	Systematic Study of Soft X-ray Spectra of Poly(Dg)-Poly(Dc) and Poly(Da)-Poly(Dt) DNA Duplexes. <i>Journal of Physical Chemistry B</i> , 2010, 114, 7016-7021.	1.2	24
27	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
28	Adsorption structure of 1,3-butadiene on Pd(110). <i>Surface Science</i> , 2002, 502-503, 164-168.	0.8	22
29	Water reaction on SrTiO ₃ (001): promotion effect due to condensation. <i>Surface Science</i> , 2003, 544, L722-L728.	0.8	22
30	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
31	Electronic and Vibrational States of Cyclopentene on Si(100)(2 \times 1). <i>Journal of Physical Chemistry B</i> , 2002, 106, 1691-1696.	1.2	21
32	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
33	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
34	Molecular beam study on scattering and sticking of molecular oxygen at Si(100). <i>Surface Science</i> , 1991, 242, 386-393.	0.8	19
35	Interaction of condensed water molecules with hydroxyl and hydrogen groups on Si(001). <i>Surface Science</i> , 2005, 587, 34-40.	0.8	19
36	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

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37	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
38	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
39	Rainbow scattering of CO and N ₂ from LiF(001). <i>Journal of Chemical Physics</i> , 2005, 122, 244713.	1.2	18
40	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
41	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
42	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
43	Image Potential State Mediated Excitation at Rubrene/Graphite Interface. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5821-5826.	1.5	17
44	Electronic states of the DNA polynucleotides poly(dG)-poly(dC) in the presence of iodine. <i>Physical Review B</i> , 2007, 75, .	1.1	16
45	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
46	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
47	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
48	Estimation of direct and indirect interactions between CO molecules on Pd(110). <i>Surface Science</i> , 2002, 513, 239-248.	0.8	15
49	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
50	Valence States of One-Dimensional Molecular Assembly Formed by Ketone Molecules on the Si(100)-(2 × 1) Surface. <i>Journal of Physical Chemistry C</i> , 2007, 111, 12879-12886.	1.5	15
51	Long-Range Proton Transport for the Water Reaction on Si(001): Study of Hydrogen-Bonded Systems with a Model Liquid/solid Interface. <i>Journal of Physical Chemistry C</i> , 2008, 112, 12879-12886.	1.5	14
52	Different Adsorbed States of 1,4-Cyclohexadiene on Si(001) Controlled by Substrate Temperature. <i>Journal of Physical Chemistry C</i> , 2007, 111, 2557-2564.	1.5	12
53	Characterization of an Organic Field-Effect Thin-Film Transistor in Operation Using Fluorescence-Yield X-Ray Absorption Spectroscopy. <i>Physical Review Letters</i> , 2011, 107, 147401.	2.9	12
54	Partial Hydrogenation of 1,3-Butadiene on Hydrogen-Precovered Pd(110) in the Balance of π -Bonded C ₄ Hydrocarbon Reactions. <i>Journal of Physical Chemistry C</i> , 2008, 112, 17219-17224.	1.5	11

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55	Self-Activated Catalyst Layer for Partial Hydrogenation of 1,3-Butadiene on a Hydrogen-Precovered Pd(110) Surface. <i>Journal of Physical Chemistry C</i> , 2009, 113, 14872-14878.	1.5	11
56	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
57	Photochemistry of N ₂ O on Si(100): surface photo-oxidation. <i>Surface Science</i> , 2000, 445, 209-223.	0.8	10
58	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
59	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
60	Photo-stimulated desorption of rare gas atoms induced by UV-NIR photons at a semiconductor surface. <i>Surface Science</i> , 2000, 446, L134-L139.	0.8	8
61	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
62	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
63	Substituent Effect on the Intermolecular Arrangements of One-Dimensional Molecular Assembly on the Si(100)-(2 \times 1)-H Surface. <i>Journal of Physical Chemistry C</i> , 2013, 117, 270-275.	1.5	7
64	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
65	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
66	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
67	Dynamical study of alkali promotion of NO sticking on Si(100). <i>Surface Science</i> , 1993, 283, 9-20.	0.8	5
68	HREELS, STM, and LEED studies of the Si(100)-(4 \times 4) surface at 100 and 300K: Formation of Si-C surface dimers. <i>Physical Review B</i> , 2006, 73, .	1.1	5
69	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
70	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
71	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
72	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

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73	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
74	Adsorption-state specific photodissociation dynamics of N ₂ O on Si(100). <i>Surface Science</i> , 1997, 386, 93-100.	0.8	3
75	Band Engineering-Tuned Localized Surface Plasmon Resonance in Diverse-Phased Cu ₂ S _x Se _{1-y} Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2022, 126, 8107-8112.	1.5	3
76	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
77	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
78	Electronic state observation of inner organic thin films beneath electrodes: Fluorescence-yield X-ray absorption spectra of pentacene derivative films. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2009, 174, 93-99.	0.8	2
79	Molecular Assembly Through the Chain Reaction of Substituted Acenes on the Si(100)-(2 Å ⁻¹)-H Surface. <i>Journal of Physical Chemistry C</i> , 2013, , 130912152428004.	1.5	2
80	Dispersive Electronic States of the π -Orbitals Stacking in Single Molecular Lines on the Si(001)-(2Å ⁻¹)-H Surface. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1199-1204.	2.1	2
81	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
82	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
83	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
84	Atomic scale understanding of linear and perpendicular junction of molecular lines on Si(100)-H surface. , 2012, , .		0
85	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
86	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