

# Koji Sumitomo

## List of Publications by Year in descending order

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99  
papers

1,429  
citations

361413

20  
h-index

361022

35  
g-index

101  
all docs

101  
docs citations

101  
times ranked

1393  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen-mediated epitaxy of Ag on Si(111) as studied by low-energy ion scattering. <i>Physical Review Letters</i> , 1991, 66, 1193-1196.	7.8	161
2	Direct Observation of ATP-Induced Conformational Changes in Single P2X4 Receptors. <i>PLoS Biology</i> , 2009, 7, e1000103.	5.6	98
3	A DNA aptamer recognising a malaria protein biomarker can function as part of a DNA origami assembly. <i>Scientific Reports</i> , 2016, 6, 21266.	3.3	82
4	A Self-Assembled Protein Nanotube with High Aspect Ratio. <i>Small</i> , 2009, 5, 2077-2084.	10.0	73
5	Supported Lipid Bilayer Self-Spreading on a Nanostructured Silicon Surface. <i>Langmuir</i> , 2007, 23, 367-371.	3.5	51
6	Real-time imaging of DNA-streptavidin complex formation in solution using a high-speed atomic force microscope. <i>Ultramicroscopy</i> , 2007, 107, 184-190.	1.9	51
7	Adsorption of H on : evidence for Ag(111) agglomerates formation. <i>Surface Science</i> , 1991, 254, L460-L464.	1.9	47
8	Fabrication and Integration of Nanostructures on Si Surfaces. <i>Accounts of Chemical Research</i> , 1999, 32, 447-454.	15.6	46
9	Reversible Defect Engineering of Single-Walled Carbon Nanotubes Using Scanning Tunneling Microscopy. <i>Nano Letters</i> , 2007, 7, 3623-3627.	9.1	46
10	Gold Nanoparticle-Induced Formation of Artificial Protein Capsids. <i>Nano Letters</i> , 2012, 12, 2056-2059.	9.1	42
11	Ca <sup>2+</sup> ion transport through channels formed by $\beta$ -hemolysin analyzed using a microwell array on a Si substrate. <i>Biosensors and Bioelectronics</i> , 2012, 31, 445-450.	10.1	37
12	In situ oxidation of a thin layer of Ge on Si(001): Observation of GeO to SiO <sub>2</sub> transition. <i>Applied Physics Letters</i> , 1993, 62, 864-866.	3.3	36
13	Intermixing at Ge/Si(001) interfaces studied by surface energy loss of medium energy ion scattering. <i>Surface Science</i> , 1997, 385, 200-206.	1.9	32
14	Structural study of Ag overlayers deposited on a Si(111) substrate by impact-collision ion-scattering-spectroscopy with time-of-flight detection. <i>Applied Surface Science</i> , 1990, 41-42, 112-117.	6.1	30
15	Mobile Silk Fibroin Electrode for Manipulation and Electrical Stimulation of Adherent Cells. <i>Advanced Functional Materials</i> , 2016, 26, 8185-8193.	14.9	28
16	Confinement of Fluorescent Probes in Microwells on Si Substrates by Sealing with Lipid Bilayers. <i>Applied Physics Express</i> , 2010, 3, 107001.	2.4	23
17	Atomic Structures of the Ge/Si(113) $\sqrt{2} \times \sqrt{2}$ Surface. <i>Physical Review Letters</i> , 2002, 88, 256101.	7.8	22
18	Influences of the Si anisotropy on Ge nanowire formation and related island shape transition. <i>Surface Science</i> , 2002, 497, 93-99.	1.9	22

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19	Design of Si surfaces for self-assembled nanoarchitecture. <i>Surface Science</i> , 2002, 514, 1-9.	1.9	21
20	Electrode performance of layered LiNi <sub>0.5</sub> Ti <sub>0.5</sub> O <sub>2</sub> prepared by ion exchange. <i>Journal of Power Sources</i> , 2005, 144, 183-190.	7.8	21
21	Diffusion mediated chemical reaction in Co/Ge/Si(100) forming Ge/CoSi <sub>2</sub> /Si(100). <i>Applied Physics Letters</i> , 1996, 68, 1241-1243.	3.3	19
22	Luminescent Nanoring Structures on Silicon. <i>Advanced Materials</i> , 2003, 15, 1522-1526.	21.0	19
23	Liquid-Ordered/Liquid-Crystalline Phase Separation at a Lipid Bilayer Suspended over Microwells. <i>Langmuir</i> , 2017, 33, 13277-13283.	3.5	18
24	Disordering of Si(111) at high temperatures. <i>Physical Review B</i> , 1998, 58, 12587-12589.	3.2	17
25	Control of surface composition on Ge/Si(001) by atomic hydrogen irradiation. <i>Surface Science</i> , 1999, 436, 9-14.	1.9	16
26	Vesicle fusion with bilayer lipid membrane controlled by electrostatic interaction. <i>Biochemistry and Biophysics Reports</i> , 2017, 11, 58-63.	1.3	16
27	Fabrication of buried epitaxial CoSi <sub>2</sub> layer through selective diffusion. <i>Applied Physics Letters</i> , 1997, 70, 607-609.	3.3	15
28	Low-energy recoil-ion spectroscopy studies of hydrogen adsorption on Si(100)-2 × 1 surfaces. <i>Surface Science</i> , 1991, 242, 422-427.	1.9	14
29	Ag thin film growth on hydrogen-terminated Si(100) surface studied by TOF-ICISS. <i>Applied Surface Science</i> , 1992, 60-61, 195-199.	6.1	14
30	Stopping powers and energy straggling for 50–300 keV H <sup>+</sup> in amorphous Si and Ge films. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1996, 115, 34-38.	1.4	14
31	Anisotropic strain relaxation of Ge nanowires on Si(113) studied by medium-energy ion scattering. <i>Physical Review B</i> , 2003, 67, .	3.2	14
32	Visualization of Single Membrane Protein Structure in Stretched Lipid Bilayer Suspended over Nanowells. <i>Applied Physics Express</i> , 2010, 3, 027002.	2.4	14
33	Preparation and characterization of a well-ordered surface on a Si(001) substrate with a buried metal layer for application of infrared reflection spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996, 14, 2263-2268.	2.1	12
34	Interaction of Co with SiGe epilayer grown on Si(100). <i>Surface Science</i> , 1999, 421, 100-105.	1.9	11
35	Time-lapse imaging of morphological changes in a single neuron during the early stages of apoptosis using scanning ion conductance microscopy. <i>Journal of Structural Biology</i> , 2015, 191, 32-38.	2.8	11
36	TOF-ICISS study of surface damage formed by Ar ion bombardment on Si(100). <i>Surface Science</i> , 1991, 242, 90-94.	1.9	10

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37	Ge segregation mechanism during Si/Ge multilayer growth. <i>Thin Solid Films</i> , 1999, 357, 76-80.	1.8	10
38	Pattern Formation and Molecular Transport of Histidine-Tagged GFPs Using Supported Lipid Bilayers. <i>Langmuir</i> , 2010, 26, 12716-12721.	3.5	10
39	Energy loss and straggling for 50- and 100-keV H <sup>+</sup> ions passing through the Si(001)2Å-1-Sb surface. <i>Physical Review B</i> , 1997, 56, 7011-7017.	3.2	9
40	Structure change of Ni(1 ML)/Si(111) by post-annealing observed by atomic force microscopy, ion scattering and photoelectron spectroscopy. <i>Surface Science</i> , 2002, 511, 112-120.	1.9	9
41	Elastic modulus of suspended purple membrane measured by atomic force microscopy. <i>Applied Surface Science</i> , 2008, 254, 7877-7880.	6.1	9
42	Effect of Ca <sup>2+</sup> on Vesicle Fusion on Solid Surface: An In vitro Model of Protein-Accelerated Vesicle Fusion. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 6164.	1.5	9
43	Evaluation of Lateral Diffusion of Lipids in Continuous Membranes between Freestanding and Supported Areas by Fluorescence Recovery after Photobleaching. <i>Langmuir</i> , 2019, 35, 11725-11734.	3.5	9
44	Graphene synthesis from pentacene by soft X-ray irradiation. <i>Thin Solid Films</i> , 2020, 713, 138365.	1.8	9
45	Hydrogen-induced reconstruction of Si(111)-Ag surface studied by TOF-ICISS. <i>Applied Surface Science</i> , 1992, 60-61, 183-189.	6.1	7
46	Structure analysis of Ge dimer on Si(001) by medium-energy ion scattering blocking profiles from embedded Ge layers. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997, 15, 1537-1541.	2.1	7
47	Dimer structures of Ge/Si(001) and Sb/Si(001) studied by medium-energy ion scattering. <i>Applied Surface Science</i> , 1998, 130-132, 133-138.	6.1	7
48	Surface segregation and interdiffusion of Ge on Si(001) studied by medium-energy ion scattering. <i>Thin Solid Films</i> , 2000, 369, 112-115.	1.8	7
49	STM observations of three-dimensional Ge islands on Si(111) surfaces with different step orientations and step-bunching conditions. <i>Surface Science</i> , 2004, 562, 15-21.	1.9	7
50	Atomic Force Microscopy Observation of Membrane Proteins Suspended over Carbon Nanotube Network. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 08JB18.	1.5	7
51	Examination of Ion Channel Protein Orientation in Supported Lipid Bilayers. <i>Applied Physics Express</i> , 2011, 4, 107001.	2.4	7
52	Ligand-induced structural changes in a membrane-reconstituted ion channel observed with atomic force microscopy. <i>Applied Physics Express</i> , 2014, 7, 027001.	2.4	7
53	Oxidation of Ultrathin SiGe Layer on Si(001): Evidence for Inward Movement of Ge. <i>Japanese Journal of Applied Physics</i> , 1994, 33, 1837-1838.	1.5	6
54	Thermal effects on surface Fermi level for GaAs(001). <i>Journal of Applied Physics</i> , 1996, 79, 7785-7789.	2.5	6

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55	Ge molecular beam epitaxy on Si(113): surface structures, nanowires and nanodots. Surface and Interface Analysis, 2004, 36, 114-118.	1.8	6
56	Molecular-Mediated Single-Electron Devices Operating at Room Temperature. Japanese Journal of Applied Physics, 2006, 45, 4285-4289.	1.5	6
57	Removal of Surface Contamination by Atomic Hydrogen Annealing. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2020, 33, 419-426.	0.3	6
58	Structure analysis of the GaAs(001)-2 Å <sup>-4</sup> surface using medium energy ion scattering. Surface Science, 1996, 355, L361-L365.	1.9	5
59	Selective formation of Ge nanostructures on Si(111) surface with patterned steps. Applied Surface Science, 2004, 237, 68-74.	6.1	5
60	Boronizing structures of Si(113) surfaces. Surface Science, 2005, 576, 83-88.	1.9	4
61	Control of phase separation in freestanding lipid bilayer over microwells. Japanese Journal of Applied Physics, 2019, 58, S1D06.	1.5	4
62	Atomic structure analysis of the interfaces in Si/Ge superlattices. Applied Surface Science, 1996, 100-101, 503-507.	6.1	3
63	Structure transition of Ge/Si(113) surfaces during Ge epitaxial growth. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 24, 157-160.	2.7	3
64	Effect of UV/Ozone Treatment on Nanogap Electrodes for Molecular Devices. Japanese Journal of Applied Physics, 2007, 46, 1731-1733.	1.5	3
65	Hermetically sealed microwell with a lipid bilayer created using a self-assembled monolayer. Applied Physics Express, 2015, 8, 117201.	2.4	3
66	Scanning Electron Microscopy Observation of Interface Between Single Neurons and Conductive Surfaces. Journal of Nanoscience and Nanotechnology, 2016, 16, 3383-3387.	0.9	3
67	Soft X-ray absorption and emission spectra of nanographene prepared from pentacene with hot mesh deposition and soft X-ray irradiation. Japanese Journal of Applied Physics, 2021, 60, 045506.	1.5	3
68	Observation of Neuronal Death & In Vitro by SEM and Optical Microscopy. E-Journal of Surface Science and Nanotechnology, 2014, 12, 179-184.	0.4	3
69	Structural Stability and Anisotropic Stress of Ge/Si(113)-2*2 Surface. Hyomen Kagaku, 2003, 24, 526-530.	0.0	3
70	Mechanism of Budded Virus Envelope Fusion into a Planar Bilayer Lipid Membrane on a SiO <sub>2</sub> Substrate. Langmuir, 2022, , .	3.5	3
71	Observation of B segregation on Si(113) by scanning tunneling microscopy. Ultramicroscopy, 2005, 105, 16-21.	1.9	2
72	Fabrication of a gel-supported lipid membrane array on a silicon substrate. Japanese Journal of Applied Physics, 2014, 53, 01AF02.	1.5	2

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73	Electrostatically induced planar lipid membrane formation on a cationic hydrogel array by the fusion of small negatively charged unilamellar vesicles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 477, 63-69.	4.7	2
74	Neuronal Growth on a-Si and Au Nanopillars. <i>Electrochemistry</i> , 2016, 84, 296-298.	1.4	2
75	Adsorption of H on Si(111)- $\sqrt{3} \times \sqrt{3}$ -Ag: evidence for Ag(111) agglomerates formation. <i>Surface Science Letters</i> , 1991, 254, L460-L464.	0.1	1
76	Ion-induced electron emission from crystal targets with noncrystalline overlayers. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1998, 140, 47-54.	1.4	1
77	Oxidation of cobalt pre-reacted SiGe epilayer grown on Si(100). <i>Surface Science</i> , 1999, 429, 274-278.	1.9	1
78	Ion-induced electron emission from Si crystal targets covered with noncrystalline Si layers. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2000, 168, 181-191.	1.4	1
79	Ion-induced electron measurements using crystal targets overlaid with noncrystalline layers. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2000, 164-165, 897-902.	1.4	1
80	Structural stability of the Ge/Si(1 1 3)- $2\sqrt{3} \times 2\sqrt{3}$ surface. <i>Applied Surface Science</i> , 2003, 212-213, 724-729.	6.1	1
81	Formation of a suspended lipid membrane on a microcavity covered by a thin SiO <sub>2</sub> layer with a nanohole array. <i>Applied Physics Express</i> , 2014, 7, 017001.	2.4	1
82	Fabrication of a ring structure at the aperture of a hole for the efficient suspension of a lipid bilayer. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 096503.	1.5	1
83	Observation of intracellular protein localization area in a single neuron using gold nanoparticles with a scanning electron microscope. <i>Micron</i> , 2019, 126, 102740.	2.2	1
84	Phase separation in freestanding bilayer lipid membrane induced by osmotic pressure difference. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 027001.	1.5	1
85	Nanographene synthesis on metal film using pentacene, H <sub>2</sub> gas and heated W mesh at low temperature. <i>Japanese Journal of Applied Physics</i> , 2021, 60, SBBK09.	1.5	1
86	Surface analysis by a TOF-ICISS/ERDA method.. <i>Shinku/Journal of the Vacuum Society of Japan</i> , 1991, 34, 136-139.	0.2	1
87	Multistable features of boronized interstitial-pentamers on Si(113) surfaces. <i>Surface and Interface Analysis</i> , 2006, 38, 1078-1082.	1.8	0
88	Vesicle Fusion with Artificial Bilayer Lipid Membrane Induced by Electrostatic Interaction. <i>Bunseki Kagaku</i> , 2019, 68, 23-32.	0.2	0
89	Biodevices using microwells sealed with artificial lipid bilayers: Improvement of sealing performance by protein coating. <i>Electronics and Communications in Japan</i> , 2020, 103, 15-22.	0.5	0
90	Structural and Electrical Properties of Nanographene Prepared from Pentacene by Hot Mesh Deposition and Soft X-ray Irradiation. , 2021, , .		0

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91	Surface Segregation in Ge/Si System Studied by Medium Energy Ion Scattering.. Hyomen Kagaku, 2001, 22, 197-202.	0.0	0
92	ä,éÿä,ä,ä,f³æ•fä¹±æ³•i¼^MEISi¼%ãëµ°æÿ»åž«ä_f^ä_f³ä_fä_f«é¡•ä¾¼©é¡¼^STMi¼%ã«ä,ä,«èj"éä_fšä_fžæš«éä¼ä_fæž. Shonku/Journal of Applied Physics, 2022, 61, SC1057.	1.5	0
93	Water Permeability through the Lipid Bilayers Suspended over Microwells on Si Substrates. IEEJ Transactions on Electronics, Information and Systems, 2020, 140, 421-425.	0.2	0
94	Biodevices Using Microwells Sealed with Artificial Lipid Bilayers: Improvement of Sealing Performance by Protein Coating. IEEJ Transactions on Electronics, Information and Systems, 2020, 140, 426-431.	0.2	0
95	Effect of atomic hydrogen exposure on hydrogenated amorphous carbon thin films. Japanese Journal of Applied Physics, 0, , .	1.5	0
96	Deuteration of Pentacene Using Deuterium Gas and Heated Catalyst. , 2020, , .		0
97	Effects of Ge and Ni catalytic underlayers to nanographene synthesis from pentacene-based film via soft X-ray irradiation. Japanese Journal of Applied Physics, 2022, 61, SC1057.	1.5	0
98	Selective arrangement of vesicles on artificial lipid membrane by biotin-avidin interaction. Japanese Journal of Applied Physics, 2022, 61, 037002.	1.5	0
99	Factors Facilitating Fusion between Dye-encapsulating Vesicles and Giant Unilamellar Vesicles. Sensors and Materials, 2021, 33, 4361.	0.5	0