

# Hiroyuki Sugimura

## List of Publications by Year in descending order

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105  
papers

2,692  
citations

218677

26  
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106  
all docs

106  
docs citations

106  
times ranked

2468  
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface Photo-Activation Bonding for Synthetic Resins. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2022, 91, 191-194.	0.1	0
2	Fabrication of reduced graphene oxide with high electrical conductivity by thermal-assisted photoreduction of electrochemically-exfoliated graphene oxide. Japanese Journal of Applied Physics, 2022, 61, SL1012.	1.5	1
3	Visualization of solvation structure on Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> (111)/ ionic liquid-based electrolyte interface by atomic force microscopy. Japanese Journal of Applied Physics, 2021, 60, SE1004.	1.5	6
4	Kelvin probe force microscopy studies on the influence of hydrocarbon chain length on 1-alkene self-assembled monolayers on Si (111). Japanese Journal of Applied Physics, 2021, 60, SE1005.	1.5	3
5	Chemical Etching of Silicon Assisted by Graphene Oxide in an HF/HNO <sub>3</sub> Solution and Its Catalytic Mechanism. Langmuir, 2021, 37, 9920-9926.	3.5	4
6	Controlled Growth of Organosilane Micropatterns on Hydrophilic and Hydrophobic Surfaces Templated by Vacuum Ultraviolet Photolithography. Langmuir, 2021, 37, 13932-13940.	3.5	3
7	Atomic-Scale Structural Analysis on the Interfaces between Molten Gallium and Solid Alloys by Atomic Force Microscopy. Journal of Physical Chemistry C, 2021, 125, 26201-26207.	3.1	3
8	Vacuum Ultra-violet Photo-Activation Bonding of Polyoxymethylene Plate. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2021, 72, 704-706.	0.2	2
9	Microstructured SiO <sub>2</sub> /COP Stamps for Patterning TiO <sub>2</sub> on Polymer Substrates via Microcontact Printing. Langmuir, 2020, 36, 10933-10940.	3.5	3
10	Structural-Defect-Mediated Grafting of Alkylamine on Few-Layer MoS <sub>2</sub> and Its Potential for Enhancement of Tribological Properties. ACS Applied Materials & Interfaces, 2020, 12, 30720-30730.	8.0	30
11	Room temperature direct patterning of nanocrystalline zinc oxide on flexible polymer substrates through vacuum ultraviolet light irradiation. Thin Solid Films, 2020, 709, 138166.	1.8	8
12	Visualizing polymeric liquid/solid interfaces by atomic force microscopy utilizing quartz tuning fork sensors. Japanese Journal of Applied Physics, 2020, 59, SN1009.	1.5	8
13	Solvation structure on water-in-salt/mica interfaces and its molality dependence investigated by atomic force microscopy. Japanese Journal of Applied Physics, 2020, 59, SN1003.	1.5	12
14	Fabrication of TiO <sub>2</sub> Micropatterns on Flexible Substrates by Vacuum Ultraviolet Photochemical Treatments. Advanced Materials Interfaces, 2020, 7, 1901634.	3.7	7
15	Room temperature bonding of cycloolefin polymer by vacuum ultraviolet surface photoactivation. International Journal of Adhesion and Adhesives, 2020, 100, 102604.	2.9	6
16	Local current mapping of electrochemically-exfoliated graphene oxide by conductive AFM. Japanese Journal of Applied Physics, 2020, 59, SN1001.	1.5	4
17	Stability of a phosphonic acid monolayer on aluminum in liquid environments. Japanese Journal of Applied Physics, 2020, 59, SDDA08.	1.5	1
18	Chemical Immobilization of Graphene Oxide on Hydrogen Terminated Silicon via Vinyl Aniline Molecule Linking. Chemistry Letters, 2019, 48, 1101-1104.	1.3	1

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19	Alkylated graphene oxide and reduced graphene oxide: Grafting density, dispersion stability to enhancement of lubrication properties. <i>Journal of Colloid and Interface Science</i> , 2019, 541, 150-162.	9.4	60
20	Chemical etching of silicon assisted by graphene oxide. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 050924.	1.5	11
21	Formation of submicron-sized silica patterns on flexible polymer substrates based on vacuum ultraviolet photo-oxidation. <i>RSC Advances</i> , 2019, 9, 32313-32322.	3.6	8
22	Vacuum Ultraviolet Treatment of Acid- and Ester-Terminated Self-Assembled Monolayers: Chemical Conversions and Friction Reduction. <i>Langmuir</i> , 2018, 34, 3228-3236.	3.5	6
23	1,2-Epoxyalkane: Another Precursor for Fabricating Alkoxy Self-Assembled Monolayers on Hydrogen-Terminated Si(111). <i>Langmuir</i> , 2018, 34, 13162-13170.	3.5	13
24	Investigation of BMI-PF6 Ionic Liquid/Graphite Interface Using Frequency Modulation Atomic Force Microscopy. <i>MRS Advances</i> , 2018, 3, 2725-2733.	0.9	2
25	Ultra-Violet and Vacuum Ultra-Violet Excitation Reactions for Polymer Surface Modification. <i>Hymen Cijutsu/Journal of the Surface Finishing Society of Japan</i> , 2018, 69, 58-64.	0.2	4
26	Fabrication of reduced graphene oxide micro patterns by vacuum-ultraviolet irradiation: From chemical and structural evolution to improving patterning precision by light collimation. <i>Carbon</i> , 2017, 119, 82-90.	10.3	22
27	Octadecanethiol-grafted molybdenum disulfide nanosheets as oil-dispersible additive for reduction of friction and wear. <i>FlatChem</i> , 2017, 3, 16-25.	5.6	44
28	Immobilization of Reduced Graphene Oxide on Hydrogen-Terminated Silicon Substrate as a Transparent Conductive Protector. <i>Langmuir</i> , 2017, 33, 10765-10771.	3.5	13
29	Low Damage Reductive Patterning of Oxidized Alkyl Self-Assembled Monolayers through Vacuum Ultraviolet Light Irradiation in an Evacuated Environment. <i>Langmuir</i> , 2017, 33, 10829-10837.	3.5	14
30	Decoration of reduced graphene oxide by gold nanoparticles: an enhanced negative photoconductivity. <i>Nanoscale</i> , 2017, 9, 14703-14709.	5.6	20
31	Protective layer for cycloolefin polymer against an aromatic solvent prepared by chemical vapor deposition using cyclosiloxane as a raw molecule. <i>Thin Solid Films</i> , 2017, 638, 28-33.	1.8	6
32	Vacuum ultraviolet trimming of oxygenated functional groups from oxidized self-assembled hexadecyl monolayers in an evacuated environment. <i>Applied Surface Science</i> , 2017, 416, 971-979.	6.1	12
33	Self-Assembly of Graphene Oxide on Silicon Substrate via Covalent Interaction: Low Friction and Remarkable Wear-Resistivity. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500410.	3.7	33
34	Vacuum-Ultraviolet Promoted Oxidative Micro Photoetching of Graphene Oxide. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 10627-10635.	8.0	24
35	Photochemical Preparation of Alkoxy Self-assembled Monolayers on Si from 1,2-Epoxyalkane Molecules. <i>Chemistry Letters</i> , 2016, 45, 561-563.	1.3	4
36	Covalently attached graphene-ionic liquid hybrid nanomaterials: synthesis, characterization and tribological application. <i>Journal of Materials Chemistry A</i> , 2016, 4, 926-937.	10.3	129

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37	Study of the adhesion and interface of the low-temperature bonding of vacuum ultraviolet-irradiated cyclo-olefin polymer using electron microscopy. <i>Polymer Journal</i> , 2016, 48, 473-479.	2.7	31
38	True Molecular-resolution Imaging on Alkanethiol Self-assembled Monolayers in Ionic Liquids by Frequency Modulation Atomic Force Microscopy Utilizing a Quartz Tuning Fork Sensor. <i>Chemistry Letters</i> , 2015, 44, 459-461.	1.3	9
39	Use of Diode Analogy in Explaining the Voltammetric Characteristics of Immobilized Ferrocenyl Moieties on a Silicon Surface. <i>ChemElectroChem</i> , 2015, 2, 68-72.	3.4	5
40	Scanning Probe Lithography Based on Electrochemical Oxidation and Reduction. <i>Journal of the Vacuum Society of Japan</i> , 2015, 58, 50-56.	0.3	0
41	Vacuum-ultraviolet photoreduction of graphene oxide: Electrical conductivity of entirely reduced single sheets and reduced micro line patterns. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	27
42	Molecular pillar supported graphene oxide framework: conformational heterogeneity and tunable d-spacing. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 20822-20829.	2.8	26
43	Chemical conversion of self-assembled hexadecyl monolayers with active oxygen species generated by vacuum ultraviolet irradiation in an atmospheric environment. <i>Soft Matter</i> , 2015, 11, 5678-5687.	2.7	24
44	Photo-Activation Bonding of Cyclo-Olefin Polymer Plates: Evaluation of the Bonding Strength and Application to Micro-Fluidic Chips. <i>Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan</i> , 2014, 65, 234-239.	0.2	4
45	High-resolution Structural Analysis on Ionic-Liquid/Solid Interfaces by Frequency Modulation Atomic Force Microscopy. <i>Microscopy (Oxford, England)</i> , 2014, 63, i10.1-i11.	1.5	0
46	Atomic-Resolution Imaging on Alkali Halide Surfaces in Viscous Ionic Liquid Using Frequency Modulation Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26803-26807.	3.1	32
47	Reductive patterning of graphene oxide by vacuum ultraviolet irradiation in high vacuum. <i>Applied Physics Express</i> , 2014, 7, 075101.	2.4	12
48	Self-Assembled Monolayer Covalently Fixed on Oxide-Free Silicon. , 2014, , 161-193.		1
49	Hydrothermal deoxygenation of graphene oxide in sub- and supercritical water. <i>RSC Advances</i> , 2014, 4, 22589.	3.6	52
50	Structural Analysis of Ionic-liquid/Organic-monolayer Interface by Phase Modulation Atomic Force Microscopy Utilizing a Quartz Tuning Fork Sensor. <i>Electrochemistry</i> , 2014, 82, 380-384.	1.4	8
51	Reductive Nucleation of Palladium Nanoparticles on a Cycloolefin Polymer Surface Oxidized with Active Oxygen Species Generated by Vacuum Ultraviolet Excitation. <i>Chemistry Letters</i> , 2014, 43, 1557-1559.	1.3	11
52	Photochemical grafting of methyl groups on a Si(111) surface using a Grignard reagent. <i>Journal of Colloid and Interface Science</i> , 2013, 411, 145-151.	9.4	3
53	Photochemical Assembly of Gold Nanoparticle Arrays Covalently Attached to Silicon Surface Assisted by Localized Plasmon in the Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2013, 117, 2480-2485.	3.1	20
54	Influence of Chloride Ions on Quality and Mechanical Properties of Electrodeposited Copper in Copper Electrorefining. <i>Journal of MMIJ</i> , 2013, 129, 72-77.	0.3	4

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55	Frequency Modulation Atomic Force Microscopy in Ionic Liquid Using Quartz Tuning Fork Sensors. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 08KB08.	1.5	31
56	Photochemical Preparation of Methyl-terminated Si(111) Surface Using a Grignard Reagent. <i>Chemistry Letters</i> , 2012, 41, 902-904.	1.3	4
57	Vinylferrocene Photochemical Preparation on Si(111) Surface in Different Grafting Media. <i>Chemistry Letters</i> , 2012, 41, 1188-1190.	1.3	4
58	Nanotemplate Prepared by Means of Vacuum Ultraviolet Patterning of Alkylsilane Self-assembled Monolayer on ITO Using a Porous Alumina Mask: Application to the Fabrication of Gold Nanoparticle Arrays. <i>Chemistry Letters</i> , 2012, 41, 392-393.	1.3	5
59	Site-Selective Assembly and Reorganization of Gold Nanoparticles along Aminosilane-Covered Nanolines Prepared on Indium-Tin Oxide. <i>Langmuir</i> , 2012, 28, 7579-7584.	3.5	30
60	Reduced Consumption of Glue and Electric Power by Continuous Glue Dissolution System Installed at The Tamano Refinery. <i>Journal of MMIJ</i> , 2012, 128, 155-159.	0.3	6
61	Molecular packing density of a self-assembled monolayer formed from N-(2-aminoethyl)-3-aminopropyltriethoxysilane by a vapor phase process. <i>Chemical Communications</i> , 2011, 47, 8841.	4.1	17
62	Quantitative Analysis of Titanium Ions in the Equilibrium with Metallic Titanium in NaCl-KCl Equimolar Molten Salt. <i>Materials Transactions</i> , 2010, 51, 2121-2124.	1.2	21
63	Degradation behavior of release layers for nanoimprint lithography formed on atomically flat Si(111) terraces. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010, 28, 968-972.	1.2	0
64	Alkanethiol Self-Assembled Monolayers Formed on Silicon Substrates. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 01AE09.	1.5	12
65	Lamination Interface of the Wax-Less Permanent Cathode Process in Copper Refinery. <i>Journal of MMIJ</i> , 2010, 126, 697-700.	0.3	3
66	Soft processing for formation of self-assembled monolayer on hydrogen-terminated silicon surface based on visible-light excitation. <i>Journal of Vacuum Science &amp; Technology B</i> , 2009, 27, 858-862.	1.3	7
67	Scanning probe anodization patterning of Si substrates covered with a self-assembled monolayer dependent on surface hydrophilicity. <i>Journal of Vacuum Science &amp; Technology B</i> , 2009, 27, 928.	1.3	9
68	Vacuum ultraviolet-induced surface modification of cyclo-olefin polymer substrates for photochemical activation bonding. <i>Applied Surface Science</i> , 2009, 255, 3648-3654.	6.1	68
69	Organosilane self-assembled multilayer formation based on activation of methyl-terminated surface with reactive oxygen species generated by vacuum ultra-violet excitation of atmospheric oxygen molecules. <i>Applied Surface Science</i> , 2009, 256, 1507-1513.	6.1	11
70	Gold Nanoparticle Arrays Fabricated on a Silicon Substrate Covered with a Covalently Bonded Alkyl Monolayer by Electroless Plating Combined with Scanning Probe Anodization Lithography. <i>Journal of Physical Chemistry C</i> , 2009, 113, 11643-11646.	3.1	10
71	Alkyl and Alkoxy Monolayers Directly Attached to Silicon: Chemical Durability in Aqueous Solutions. <i>Langmuir</i> , 2009, 25, 5516-5525.	3.5	45
72	Cu-Sn Alloy Metallization of Polymer Substrate through Reduction-Diffusion Method Using Ionic Liquid Bath at Medium-Low Temperatures. <i>Electrochemistry</i> , 2009, 77, 677-679.	1.4	5

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73	Tribological properties of self-assembled monolayers covalently bonded to Si. <i>Applied Surface Science</i> , 2008, 255, 3040-3045.	6.1	19
74	Self-Assembled Monolayers Directly Attached to Silicon Substrates Formed from 1-Hexadecene by Thermal, Ultraviolet, and Visible Light Activation Methods. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 5659.	1.5	33
75	Surface Chemical Conversion of Organosilane Self-Assembled Monolayers with Active Oxygen Species Generated by Vacuum Ultraviolet Irradiation of Atmospheric Oxygen Molecules. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 307.	1.5	28
76	Regulation of Pattern Dimension as a Function of Vacuum Pressure: Alkyl Monolayer Lithography. <i>Langmuir</i> , 2008, 24, 12077-12084.	3.5	25
77	Self-Assembly Guided One-Dimensional Arrangement of Gold Nanoparticles: A Facile Approach. <i>Journal of Physical Chemistry C</i> , 2008, 112, 16182-16185.	3.1	22
78	2P-330 Blue fluorescent silicon nanocrystals for biomedical research and diagnosis(The 46th Annual) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
79	Organic Monolayers Covalently Bonded to Si as Ultra Thin Photoresist Films in Vacuum UV Lithography. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 5456-5460.	1.5	20
80	Micropatterning of self-assembled monolayers on silicon amplified with photochemically generated atomic oxygen. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2006, 284-285, 561-566.	4.7	13
81	Photochemical Oxidation of Chloromethylphenylsiloxane Self-assembled Monolayer Amplified with Atmospheric Oxygen and Its Application to Micropatterning. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 5185-5187.	1.5	22
82	Reversible nanochemical conversion. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, L44.	1.6	14
83	Organosilane self-assembled monolayers directly linked to the diamond surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2004, 22, 2005-2009.	2.1	25
84	Exploration of the chemical bonding forms of alkoxy-type organic monolayers directly attached to silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2004, 22, 1425-1427.	2.1	6
85	Micropatterning of organosilane self-assembled monolayers using vacuum ultraviolet light at 172 nm: resolution evaluation by Kelvin-probe force microscopy. <i>Surface and Coatings Technology</i> , 2003, 169-170, 211-214.	4.8	9
86	Imaging micropatterned organosilane self-assembled monolayers on silicon by means of scanning electron microscopy and Kelvin probe force microscopy. <i>Surface and Interface Analysis</i> , 2003, 35, 94-98.	1.8	14
87	Photoreactivity of Alkylsilane Self-Assembled Monolayers on Silicon Surfaces and Its Application to Preparing Micropatterned Ternary Monolayers. <i>Langmuir</i> , 2003, 19, 1966-1969.	3.5	69
88	Oxide Nanoskin Formed on Poly(methyl methacrylate). <i>Langmuir</i> , 2003, 19, 7573-7579.	3.5	33
89	Lateral force on fluoroalkylsilane self-assembled monolayers dependent on molecular ordering. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002, 20, 393.	1.6	13
90	Nanoindentation of Vacuum Ultraviolet Light-Irradiated Poly(methylmethacrylate) Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2002, 750, 1.	0.1	0

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91	Spatially Defined Surface Modification of Poly(methyl methacrylate) Using 172 nm Vacuum Ultraviolet Light. <i>Langmuir</i> , 2002, 18, 9022-9027.	3.5	91
92	The decomposition mechanism of p-chloromethylphenyltrimethoxysiloxane self-assembled monolayers on vacuum ultraviolet irradiation. <i>Journal of Materials Chemistry</i> , 2002, 12, 2684-2687.	6.7	24
93	Regulation of the Surface Potential of Silicon Substrates in Micrometer Scale with Organosilane Self-Assembled Monolayers. <i>Langmuir</i> , 2002, 18, 7469-7472.	3.5	64
94	Surface potential microscopy for organized molecular systems. <i>Applied Surface Science</i> , 2002, 188, 403-410.	6.1	75
95	Surface modification of an organosilane self-assembled monolayer on silicon substrates using atomic force microscopy: scanning probe electrochemistry toward nanolithography. <i>Ultramicroscopy</i> , 2002, 91, 221-226.	1.9	44
96	Organosilane self-assembled monolayers formed at the vapour/solid interface. <i>Surface and Interface Analysis</i> , 2002, 34, 550-554.	1.8	173
97	Amino-terminated self-assembled monolayer on a SiO <sub>2</sub> surface formed by chemical vapor deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 1812-1816.	2.1	97
98	Low Temperature Deposition of Transparent Ultra Water-Repellent Thin Films by Microwave Plasma Enhanced Chemical Vapor Deposition. <i>Materials Research Society Symposia Proceedings</i> , 2001, 711, 1.	0.1	2
99	New Developments in Chemical Wet Processes. Microfabrication Based on Self-assembled Monolayer Resists and Wet-chemical Processes.. <i>Hyomen Kagaku</i> , 2001, 22, 364-369.	0.0	1
100	Photodegradation of Organosilane Self-assembled Monolayers Irradiated with an Excimer Lamp.. <i>Journal of Photopolymer Science and Technology</i> = [Fotoporima Konwakai Shi], 2000, 13, 69-74.	0.3	23
101	Micropatterning of Alkyl- and Fluoroalkylsilane Self-Assembled Monolayers Using Vacuum Ultraviolet Light. <i>Langmuir</i> , 2000, 16, 885-888.	3.5	248
102	Effect of Sample Topography on Adhesive Force in Atomic Force Spectroscopy Measurements in Air. <i>Langmuir</i> , 2000, 16, 7796-7800.	3.5	57
103	Electrochromic Reaction of InN Thin Films. <i>Journal of the Electrochemical Society</i> , 1999, 146, 2365-2369.	2.9	20
104	Fluoroalkylsilane Monolayers Formed by Chemical Vapor Surface Modification on Hydroxylated Oxide Surfaces. <i>Langmuir</i> , 1999, 15, 7600-7604.	3.5	322
105	Morphology of Mesoporous Silica Grown on Organic Surfaces: Effects of Surface Functional Groups and Microstructures. <i>Materials Research Society Symposia Proceedings</i> , 1999, 599, 255.	0.1	0