Hiroyuki Sugimura

List of Publications by Year
in descending order

105	2,692	218677	197818
papers	citations	26 h-index	49 g-index

106	106	106	2468
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fluoroalkylsilane Monolayers Formed by Chemical Vapor Surface Modification on Hydroxylated Oxide Surfaces. Langmuir, 1999, 15, 7600-7604.	3.5	322
2	Micropatterning of Alkyl- and Fluoroalkylsilane Self-Assembled Monolayers Using Vacuum Ultraviolet Light. Langmuir, 2000, 16, 885-888.	3.5	248
3	Organosilane self-assembled monolayers formed at the vapour/solid interface. Surface and Interface Analysis, 2002, 34, 550-554.	1.8	173
4	Covalently attached grapheneâ€“ionic liquid hybrid nanomaterials: synthesis, characterization and tribological application. Journal of Materials Chemistry A, 2016, 4, 926-937.	10.3	129
5	Amino-terminated self-assembled monolayer on a SiO2 surface formed by chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1812-1816.	2.1	97
6	Spatially Defined Surface Modification of Poly(methyl methacrylate) Using 172 nm Vacuum Ultraviolet Light. Langmuir, 2002, 18, 9022-9027.	3.5	91
7	Surface potential microscopy for organized molecular systems. Applied Surface Science, 2002, 188, 403-410.	6.1	75
8	Photoreactivity of Alkylsilane Self-Assembled Monolayers on Silicon Surfaces and Its Application to Preparing Micropatterned Ternary Monolayers. Langmuir, 2003, 19, 1966-1969.	3.5	69
9	Vacuum ultraviolet-induced surface modification of cyclo-olefin polymer substrates for photochemical activation bonding. Applied Surface Science, 2009, 255, 3648-3654.	6.1	68
10	Regulation of the Surface Potential of Silicon Substrates in Micrometer Scale with Organosilane Self-Assembled Monolayers. Langmuir, 2002, 18, 7469-7472.	3.5	64
11	Alkylated graphene oxide and reduced graphene oxide: Grafting density, dispersion stability to enhancement of lubrication properties. Journal of Colloid and Interface Science, 2019, 541, 150-162.	9.4	60
12	Effect of Sample Topography on Adhesive Force in Atomic Force Spectroscopy Measurements in Air. Langmuir, 2000, 16, 7796-7800.	3.5	57
13	Hydrothermal deoxygenation of graphene oxide in sub- and supercritical water. RSC Advances, 2014, 4, 22589.	3.6	52
14	Alkyl and Alkoxyl Monolayers Directly Attached to Silicon: Chemical Durability in Aqueous Solutions. Langmuir, 2009, 25, 5516-5525.	3.5	45
15	Surface modification of an organosilane self-assembled monolayer on silicon substrates using atomic force microscopy: scanning probe electrochemistry toward nanolithography. Ultramicroscopy, 2002, 91, 221-226.	1.9	44
16	Octadecanethiol-grafted molybdenum disulfide nanosheets as oil-dispersible additive for reduction of friction and wear. FlatChem, 2017, 3, 16-25.	5.6	44
17	Oxide Nanoskin Formed on Poly(methyl methacrylate). Langmuir, 2003, 19, 7573-7579.	3.5	33
18	Self-Assembled Monolayers Directly Attached to Silicon Substrates Formed from 1-Hexadecene by Thermal, Ultraviolet, and Visible Light Activation Methods. Japanese Journal of Applied Physics, 2008, 47, 5659.	1.5	33

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19	Selfâ€Assembly of Graphene Oxide on Silicon Substrate via Covalent Interaction: Low Friction and Remarkable Wearâ€Resistivity. Advanced Materials Interfaces, 2016, 3, 1500410.	3.7	33
20	Atomic-Resolution Imaging on Alkali Halide Surfaces in Viscous Ionic Liquid Using Frequency Modulation Atomic Force Microscopy. Journal of Physical Chemistry C, 2014, 118, 26803-26807.	3.1	32
21	Frequency Modulation Atomic Force Microscopy in Ionic Liquid Using Quartz Tuning Fork Sensors. Japanese Journal of Applied Physics, 2012, 51, 08KB08.	1.5	31
22	Study of the adhesion and interface of the low-temperature bonding of vacuum ultraviolet-irradiated cyclo-olefin polymer using electron microscopy. Polymer Journal, 2016, 48, 473-479.	2.7	31
23	Site-Selective Assembly and Reorganization of Gold Nanoparticles along Aminosilane-Covered Nanolines Prepared on Indiumâ€“Tin Oxide. Langmuir, 2012, 28, 7579-7584.	3.5	30
24	Structural-Defect-Mediated Grafting of Alkylamine on Few-Layer MoS₂ and Its Potential for Enhancement of Tribological Properties. ACS Applied Materials & Interfaces, 2020, 12, 30720-30730.	8.0	30
25	Surface Chemical Conversion of Organosilane Self-Assembled Monolayers with Active Oxygen Species Generated by Vacuum Ultraviolet Irradiation of Atmospheric Oxygen Molecules. Japanese Journal of Applied Physics, 2008, 47, 307.	1.5	28
26	Vacuum-ultraviolet photoreduction of graphene oxide: Electrical conductivity of entirely reduced single sheets and reduced micro line patterns. Applied Physics Letters, 2015, 106, .	3.3	27
27	Molecular pillar supported graphene oxide framework: conformational heterogeneity and tunable d-spacing. Physical Chemistry Chemical Physics, 2015, 17, 20822-20829.	2.8	26
28	Organosilane self-assembled monolayers directly linked to the diamond surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 2005-2009.	2.1	25
29	Regulation of Pattern Dimension as a Function of Vacuum Pressure: Alkyl Monolayer Lithography. Langmuir, 2008, 24, 12077-12084.	3.5	25
30	The decomposition mechanism of p-chloromethylphenyltrimethoxysiloxane self-assembled monolayers on vacuum ultraviolet irradiation. Journal of Materials Chemistry, 2002, 12, 2684-2687.	6.7	24
31	Chemical conversion of self-assembled hexadecyl monolayers with active oxygen species generated by vacuum ultraviolet irradiation in an atmospheric environment. Soft Matter, 2015, 11, 5678-5687.	2.7	24
32	Vacuum-Ultraviolet Promoted Oxidative Micro Photoetching of Graphene Oxide. ACS Applied Materials & Interfaces, 2016, 8, 10627-10635.	8.0	24
33	Photodegradation of Organosilane Self-assembled Monolayers Irradiated with an Excimer Lamp.. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2000, 13, 69-74.	0.3	23
34	Photochemical Oxidation of Chloromethylphenylsiloxane Self-assembled Monolayer Amplified with Atmospheric Oxygen and Its Application to Micropatterning. Japanese Journal of Applied Physics, 2005, 44, 5185-5187.	1.5	22
35	Self-Assembly Guided One-Dimensional Arrangement of Gold Nanoparticles: A Facile Approach. Journal of Physical Chemistry C, 2008, 112, 16182-16185.	3.1	22
36	Fabrication of reduced graphene oxide micro patterns by vacuum-ultraviolet irradiation: From chemical and structural evolution to improving patterning precision by light collimation. Carbon, 2017, 119, 82-90.	10.3	22

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37	Quantitative Analysis of Titanium Ions in the Equilibrium with Metallic Titanium in NaCl-KCl Equimolar Molten Salt. Materials Transactions, 2010, 51, 2121-2124.	1.2	21
38	Electrochromic Reaction of InN Thin Films. Journal of the Electrochemical Society, 1999, 146, 2365-2369.	2.9	20
39	Organic Monolayers Covalently Bonded to Si as Ultra Thin Photoresist Films in Vacuum UV Lithography. Japanese Journal of Applied Physics, 2006, 45, 5456-5460.	1.5	20
40	Photochemical Assembly of Gold Nanoparticle Arrays Covalently Attached to Silicon Surface Assisted by Localized Plasmon in the Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 2480-2485.	3.1	20
41	Decoration of reduced graphene oxide by gold nanoparticles: an enhanced negative photoconductivity. Nanoscale, 2017, 9, 14703-14709.	5.6	20
42	Tribological properties of self-assembled monolayers covalently bonded to Si. Applied Surface Science, 2008, 255, 3040-3045.	6.1	19
43	Molecular packing density of a self-assembled monolayer formed from N-(2-aminoethyl)-3-aminopropyltriethoxysilane by a vapor phase process. Chemical Communications, 2011, 47, 8841.	4.1	17
44	Imaging micropatterned organosilane self-assembled monolayers on silicon by means of scanning electron microscopy and Kelvin probe force microscopy. Surface and Interface Analysis, 2003, 35, 94-98.	1.8	14
45	Reversible nanochemical conversion. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, L44.	1.6	14
46	Low Damage Reductive Patterning of Oxidized Alkyl Self-Assembled Monolayers through Vacuum Ultraviolet Light Irradiation in an Evacuated Environment. Langmuir, 2017, 33, 10829-10837.	3.5	14
47	Lateral force on fluoroalkylsilane self-assembled monolayers dependent on molecular ordering. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 393.	1.6	13
48	Micropatterning of self-assembled monolayers on silicon amplified with photochemically generated atomic oxygen. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 284-285, 561-566.	4.7	13
49	Immobilization of Reduced Graphene Oxide on Hydrogen-Terminated Silicon Substrate as a Transparent Conductive Protector. Langmuir, 2017, 33, 10765-10771.	3.5	13
50	1,2-Epoxyalkane: Another Precursor for Fabricating Alkoxy Self-Assembled Monolayers on Hydrogen-Terminated Si(111). Langmuir, 2018, 34, 13162-13170.	3.5	13
51	Alkanethiol Self-Assembled Monolayers Formed on Silicon Substrates. Japanese Journal of Applied Physics, 2010, 49, 01AE09.	1.5	12
52	Reductive patterning of graphene oxide by vacuumâ€“ultraviolet irradiation in high vacuum. Applied Physics Express, 2014, 7, 075101.	2.4	12
53	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
54	Vacuum ultraviolet trimming of oxygenated functional groups from oxidized self-assembled hexadecyl monolayers in an evacuated environment. Applied Surface Science, 2017, 416, 971-979.	6.1	12

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55	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. Applied Surface Science, 2009, 256, 1507-1513.	6.1	11
56	Reductive Nucleation of Palladium Nanoparticles on a Cycloolefin Polymer Surface Oxidized with Active Oxygen Species Generated by Vacuum Ultraviolet Excitation. Chemistry Letters, 2014, 43, 1557-1559.	1.3	11
57	Chemical etching of silicon assisted by graphene oxide. Japanese Journal of Applied Physics, 2019, 58, 050924.	1.5	11
58	Gold Nanoparticle Arrays Fabricated on a Silicon Substrate Covered with a Covalently Bonded Alkyl Monolayer by Electroless Plating Combined with Scanning Probe Anodization Lithography. Journal of Physical Chemistry C, 2009, 113, 11643-11646.	3.1	10
59	Micropatterning of organosilane self-assembled monolayers using vacuum ultraviolet light at 172 nm: resolution evaluation by Kelvin-probe force microscopy. Surface and Coatings Technology, 2003, 169-170, 211-214.	4.8	9
60	Scanning probe anodization patterning of Si substrates covered with a self-assembled monolayer dependent on surface hydrophilicity. Journal of Vacuum Science & Technology B, 2009, 27, 928.	1.3	9
61	True Molecular-resolution Imaging on Alkanethiol Self-assembled Monolayers in Ionic Liquids by Frequency Modulation Atomic Force Microscopy Utilizing a Quartz Tuning Fork Sensor. Chemistry Letters, 2015, 44, 459-461.	1.3	9
62	Structural Analysis of Ionic-liquid/Organic-monolayer Interface by Phase Modulation Atomic Force Microscopy Utilizing a Quartz Tuning Fork Sensor. Electrochemistry, 2014, 82, 380-384.	1.4	8
63	Formation of submicron-sized silica patterns on flexible polymer substrates based on vacuum ultraviolet photo-oxidation. RSC Advances, 2019, 9, 32313-32322.	3.6	8
64	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
65	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
66	Soft processing for formation of self-assembled monolayer on hydrogen-terminated silicon surface based on visible-light excitation. Journal of Vacuum Science & Technology B, 2009, 27, 858-862.	1.3	7
67	Fabrication of TiO 2 Micropatterns on Flexible Substrates by Vacuumâ€Ultraviolet Photochemical Treatments. Advanced Materials Interfaces, 2020, 7, 1901634.	3.7	7
68	Exploration of the chemical bonding forms of alkoxy-type organic monolayers directly attached to silicon. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1425-1427.	2.1	6
69	Reduced Consumption of Glue and Electric Power by Continuous Glue Dissolution System Installed at The Tamano Refinery. Journal of MMIJ, 2012, 128, 155-159.	0.3	6
70	Protective layer for cycloolefin polymer against an aromatic solvent prepared by chemical vapor deposition using cyclosiloxane as a raw molecule. Thin Solid Films, 2017, 638, 28-33.	1.8	6
71	Vacuum Ultraviolet Treatment of Acid- and Ester-Terminated Self-Assembled Monolayers: Chemical Conversions and Friction Reduction. Langmuir, 2018, 34, 3228-3236.	3.5	6
72	Room temperature bonding of cycloolefin polymer by vacuum ultraviolet surface photoactivation. International Journal of Adhesion and Adhesives, 2020, 100, 102604.	2.9	6

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73	Visualization of solvation structure on Li₄Ti₅O₁₂(111)/ ionic liquid-based electrolyte interface by atomic force microscopy. Japanese Journal of Applied Physics, 2021, 60, SE1004.	1.5	6
74	Cu-Sn Alloy Metallization of Polymer Substrate through Reduction-Diffusion Method Using Ionic Liquid Bath at Medium-Low Temperatures. Electrochemistry, 2009, 77, 677-679.	1.4	5
75	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. Chemistry Letters, 2012, 41, 392-393.	1.3	5
76	Use of Diode Analogy in Explaining the Voltammetric Characteristics of Immobilized Ferrocenyl Moieties on a Silicon Surface. ChemElectroChem, 2015, 2, 68-72.	3.4	5
77	Photochemical Preparation of Methyl-terminated Si(111) Surface Using a Grignard Reagent. Chemistry Letters, 2012, 41, 902-904.	1.3	4
78	Vinylferrocene Photochemical Preparation on Si(111) Surface in Different Grafting Media. Chemistry Letters, 2012, 41, 1188-1190.	1.3	4
79	Photo-Activation Bonding of Cyclo-Olefin Polymer Plates: Evaluation of the Bonding Strength and Application to Micro-Fluidic Chips. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2014, 65, 234-239.	0.2	4
80	Photochemical Preparation of Alkoxy Self-assembled Monolayers on Si from 1,2-Epoxyalkane Molecules. Chemistry Letters, 2016, 45, 561-563.	1.3	4
81	Local current mapping of electrochemically-exfoliated graphene oxide by conductive AFM. Japanese Journal of Applied Physics, 2020, 59, SN1001.	1.5	4
82	Chemical Etching of Silicon Assisted by Graphene Oxide in an HFâ€“HNO₃ Solution and Its Catalytic Mechanism. Langmuir, 2021, 37, 9920-9926.	3.5	4
83	Influence of Chloride Ions on Quality and Mechanical Properties of Electrodeposited Copper in Copper Electrorefining. Journal of MMIJ, 2013, 129, 72-77.	0.3	4
84	Ultra-Violet and Vacuum Ultra-Violet Excitaion Reactions for Polymer Surface Modification. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2018, 69, 58-64.	0.2	4
85	Photochemical grafting of methyl groups on a Si(111) surface using a Grignard reagent. Journal of Colloid and Interface Science, 2013, 411, 145-151.	9.4	3
86	Microstructured SiO_x/COP Stamps for Patterning TiO₂ on Polymer Substrates via Microcontact Printing. Langmuir, 2020, 36, 10933-10940.	3.5	3
87	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
88	Lamination Interface of the Wax-Less Permanent Cathode Process in Copper Refinery. Journal of MMIJ, 2010, 126, 697-700.	0.3	3
89	Controlled Growth of Organosilane Micropatterns on Hydrophilic and Hydrophobic Surfaces Templated by Vacuum Ultraviolet Photolithography. Langmuir, 2021, 37, 13932-13940.	3.5	3
90	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

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91	Low Temperature Deposition of Transparent Ultra Water-Repellent Thin Films by Microwave Plasma Enhanced Chemical Vapor Deposition. Materials Research Society Symposia Proceedings, 2001, 711, 1.	0.1	2
92	Investigation of BMI-PF6 Ionic Liquid/Graphite Interface Using Frequency Modulation Atomic Force Microscopy. MRS Advances, 2018, 3, 2725-2733.	0.9	2
93	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
94	Self-Assembled Monolayer Covalently Fixed on Oxide-Free Silicon. , 2014, , 161-193.		1
95	Chemical Immobilization of Graphene Oxide on Hydrogen Terminated Silicon via Vinyl Aniline Molecule Linking. Chemistry Letters, 2019, 48, 1101-1104.	1.3	1
96	New Developments in Chemical Wet Processes. Microfabrication Based on Self-assembled Monolayer Resists and Wet-chemical Processes.. Hyomen Kagaku, 2001, 22, 364-369.	0.0	1
97	Stability of a phosphonic acid monolayer on aluminum in liquid environments. Japanese Journal of Applied Physics, 2020, 59, SDDA08.	1.5	1
98	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
99	Morphology of Mesoporous Silica Grown on Organic Surfaces: Effects of Surface Functional Groups and Microstructures. Materials Research Society Symposia Proceedings, 1999, 599, 255.	0.1	0
100	Nanoindentation of Vacuum Ultraviolet Light-Irradiated Poly(methylmethacrylate) Substrates. Materials Research Society Symposia Proceedings, 2002, 750, 1.	0.1	0
101	2P-330 Blue fluorescent silicon nanocrystals for biomedical research and diagnosis(The 46th Annual) Tj ETQq1 1 0.784314 rgBT /Over	0.1	0
102	Degradation behavior of release layers for nanoimprint lithography formed on atomically flat Si(111) terraces. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 968-972.	1.2	0
103	High-resolution Structural Analysis on Ionic-Liquid/Solid Interfaces by Frequency Modulation Atomic Force Microscopy. Microscopy (Oxford, England), 2014, 63, i10.1-i11.	1.5	0
104	Scanning Probe Lithography Based on Electrochemical Oxidation and Reduction. Journal of the Vacuum Society of Japan, 2015, 58, 50-56.	0.3	0
105	Surface Photo-Activation Bonding for Synthetic Resins. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2022, 91, 191-194.	0.1	0