

Robert J Hamers

List of Publications by Year in descending order

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361
papers

28,408
citations

3919

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373
docs citations

373
times ranked

26625
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface Electronic Structure of Si (111)-(7Å—7) Resolved in Real Space. <i>Physical Review Letters</i> , 1986, 56, 1972-1975.	2.9	1,116
2	Photo-illuminated diamond as a solid-state source of solvated electrons in water for nitrogen reduction. <i>Nature Materials</i> , 2013, 12, 836-841.	13.3	834
3	Scanning tunneling microscopy of Si(001). <i>Physical Review B</i> , 1986, 34, 5343-5357.	1.1	824
4	DNA-modified nanocrystalline diamond thin-films as stable, biologically active substrates. <i>Nature Materials</i> , 2002, 1, 253-257.	13.3	802
5	Highly active hydrogen evolution catalysis from metallic WS ₂ nanosheets. <i>Energy and Environmental Science</i> , 2014, 7, 2608-2613.	15.6	660
6	Si(001) Dimer Structure Observed with Scanning Tunneling Microscopy. <i>Physical Review Letters</i> , 1985, 55, 1303-1306.	2.9	636
7	Highly Active Trimetallic NiFeCr Layered Double Hydroxide Electrocatalysts for Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , 2018, 8, 1703189.	10.2	509
8	Synthesis and Characterization of DNA-Modified Silicon (111) Surfaces. <i>Journal of the American Chemical Society</i> , 2000, 122, 1205-1209.	6.6	432
9	Cycloaddition Chemistry of Organic Molecules with Semiconductor Surfaces. <i>Accounts of Chemical Research</i> , 2000, 33, 617-624.	7.6	408
10	Efficient Photoelectrochemical Hydrogen Generation Using Heterostructures of Si and Chemically Exfoliated Metallic MoS ₂ . <i>Journal of the American Chemical Society</i> , 2014, 136, 8504-8507.	6.6	379
11	Color-Pure Violet-Light-Emitting Diodes Based on Layered Lead Halide Perovskite Nanoplates. <i>ACS Nano</i> , 2016, 10, 6897-6904.	7.3	378
12	Solution Growth of Single Crystal Methylammonium Lead Halide Perovskite Nanostructures for Optoelectronic and Photovoltaic Applications. <i>Journal of the American Chemical Society</i> , 2015, 137, 5810-5818.	6.6	368
13	Covalently Bonded Adducts of Deoxyribonucleic Acid (DNA) Oligonucleotides with Single-Wall Carbon Nanotubes: Synthesis and Hybridization. <i>Nano Letters</i> , 2002, 2, 1413-1417.	4.5	367
14	Imaging chemical-bond formation with the scanning tunneling microscope: NH ₃ dissociation on Si(001). <i>Physical Review Letters</i> , 1987, 59, 2071-2074.	2.9	331
15	Finite-temperature phase diagram of vicinal Si(100) surfaces. <i>Physical Review Letters</i> , 1990, 64, 2406-2409.	2.9	315
16	Distribution of <i>Thiobacillus ferrooxidans</i> and <i>Leptospirillum ferrooxidans</i> : Implications for Generation of Acid Mine Drainage. <i>Science</i> , 1998, 279, 1519-1522.	6.0	315
17	Covalent attachment of oligodeoxyribonucleotides to amine-modified Si (001) surfaces. <i>Nucleic Acids Research</i> , 2000, 28, 3535-3541.	6.5	272
18	Electronic and geometric structure of Si(111)-(7 Å— 7) and Si(001) surfaces. <i>Surface Science</i> , 1987, 181, 346-355.	0.8	251

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19	Photochemical Functionalization of Diamond Films. <i>Langmuir</i> , 2002, 18, 968-971.	1.6	250
20	Local electron states and surface geometry of Si(111)- $\sqrt{3} \times \sqrt{3}$ Ag. <i>Physical Review Letters</i> , 1987, 58, 373-376.	2.9	249
21	Enhanced Adsorption of Molecules on Surfaces of Nanocrystalline Particles. <i>Journal of Physical Chemistry B</i> , 1999, 103, 4656-4662.	1.2	238
22	Formation of Ordered, Anisotropic Organic Monolayers on the Si(001) Surface. <i>Journal of Physical Chemistry B</i> , 1997, 101, 1489-1492.	1.2	225
23	Rapid Arsenite Oxidation by <i>Thermus aquaticus</i> and <i>Thermus thermophilus</i> : A Field and Laboratory Investigations. <i>Environmental Science & Technology</i> , 2001, 35, 3857-3862.	4.6	223
24	Direct observation of the precession of individual paramagnetic spins on oxidized silicon surfaces. <i>Physical Review Letters</i> , 1989, 62, 2531-2534.	2.9	222
25	Quantum Dot Nanotoxicity Assessment Using the Zebrafish Embryo. <i>Environmental Science & Technology</i> , 2009, 43, 1605-1611.	4.6	221
26	Facile post-growth doping of nanostructured hematite photoanodes for enhanced photoelectrochemical water oxidation. <i>Energy and Environmental Science</i> , 2013, 6, 500-512.	15.6	220
27	Electrostatic sample-tip interactions in the scanning tunneling microscope. <i>Physical Review Letters</i> , 1993, 70, 2471-2474.	2.9	214
28	Effect of Ozone Oxidation on Single-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 2006, 110, 7113-7118.	1.2	208
29	Stabilization of the Metastable Lead Iodide Perovskite Phase via Surface Functionalization. <i>Nano Letters</i> , 2017, 17, 4405-4414.	4.5	204
30	Impacts of gold nanoparticle charge and ligand type on surface binding and toxicity to Gram-negative and Gram-positive bacteria. <i>Chemical Science</i> , 2015, 6, 5186-5196.	3.7	203
31	Facile Solution Synthesis of $\text{FeF}_3 \cdot 3\text{H}_2\text{O}$ Nanowires and Their Conversion to Fe_2O_3 Nanowires for Photoelectrochemical Application. <i>Nano Letters</i> , 2012, 12, 724-731.	4.5	198
32	Atomic and electronic contributions to Si(111)-(7 \times 7) scanning-tunneling-microscopy images. <i>Physical Review B</i> , 1986, 34, 1388-1391.	1.1	192
33	Silicon Surfaces as Electron Acceptors: Dative Bonding of Amines with Si(001) and Si(111) Surfaces. <i>Journal of the American Chemical Society</i> , 2001, 123, 10988-10996.	6.6	191
34	DNA Attachment and Hybridization at the Silicon (100) Surface. <i>Langmuir</i> , 2002, 18, 788-796.	1.6	190
35	Covalently Modified Silicon and Diamond Surfaces: Resistance to Nonspecific Protein Adsorption and Optimization for Biosensing. <i>Journal of the American Chemical Society</i> , 2004, 126, 10220-10221.	6.6	189
36	Amorphous MoS_xCl_y electrocatalyst supported by vertical graphene for efficient electrochemical and photoelectrochemical hydrogen generation. <i>Energy and Environmental Science</i> , 2015, 8, 862-868.	15.6	183

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37	Covalent Attachment of Catalyst Molecules to Conductive Diamond: CO ₂ Reduction Using Smart Electrodes. <i>Journal of the American Chemical Society</i> , 2012, 134, 15632-15635.	6.6	177
38	Atomic-Resolution Surface Spectroscopy with the Scanning Tunneling Microscope. <i>Annual Review of Physical Chemistry</i> , 1989, 40, 531-559.	4.8	173
39	Flexible electronic futures. <i>Nature</i> , 2001, 412, 489-490.	13.7	173
40	Atomically-Resolved Studies of the Chemistry and Bonding at Silicon Surfaces. <i>Chemical Reviews</i> , 1996, 96, 1261-1290.	23.0	172
41	Synthesis and Properties of Semiconducting Iron Pyrite (FeS ₂) Nanowires. <i>Nano Letters</i> , 2012, 12, 1977-1982.	4.5	164
42	Direct electrical detection of hybridization at DNA-modified silicon surfaces. <i>Biosensors and Bioelectronics</i> , 2004, 19, 1013-1019.	5.3	161
43	Geomicrobiology of Pyrite (FeS ₂) Dissolution: Case Study at Iron Mountain, California. <i>Geomicrobiology Journal</i> , 1999, 16, 155-179.	1.0	158
44	Nucleation and growth of epitaxial silicon on Si(001) and Si(111) surfaces by scanning tunneling microscopy. <i>Ultramicroscopy</i> , 1989, 31, 10-19.	0.8	153
45	Electrically Addressable Biomolecular Functionalization of Carbon Nanotube and Carbon Nanofiber Electrodes. <i>Nano Letters</i> , 2004, 4, 1713-1716.	4.5	150
46	An X-ray photoelectron spectroscopy study of the bonding of unsaturated organic molecules to the Si(001) surface. <i>Surface Science</i> , 1998, 416, 354-362.	0.8	145
47	Interfacial Electrical Properties of DNA-Modified Diamond Thin Films: Intrinsic Response and Hybridization-Induced Field Effects. <i>Langmuir</i> , 2004, 20, 6778-6787.	1.6	143
48	Surface chemistry, charge and ligand type impact the toxicity of gold nanoparticles to <i>Daphnia magna</i> . <i>Environmental Science: Nano</i> , 2014, 1, 260-270.	2.2	143
49	Atomically resolved carrier recombination at Si(111)-7 \times 7 surfaces. <i>Physical Review Letters</i> , 1990, 64, 1051-1054.	2.9	140
50	Stereoselectivity in Molecule-Surface Reactions: Adsorption of Ethylene on the Silicon(001) Surface. <i>Journal of the American Chemical Society</i> , 1997, 119, 7593-7594.	6.6	138
51	Tunneling microscopy, lithography, and surface diffusion on an easily prepared, atomically flat gold surface. <i>Journal of Applied Physics</i> , 1988, 63, 717-721.	1.1	137
52	Titanium dioxide nanoparticles produce phototoxicity in the developing zebrafish. <i>Nanotoxicology</i> , 2012, 6, 670-679.	1.6	136
53	A Photopatternable Pentacene Precursor for Use in Organic Thin-Film Transistors. <i>Journal of the American Chemical Society</i> , 2004, 126, 12740-12741.	6.6	135
54	Malic Acid Carbon Dots: From Super-resolution Live-Cell Imaging to Highly Efficient Separation. <i>ACS Nano</i> , 2018, 12, 5741-5752.	7.3	135

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55	DNA-Modified Diamond Surfaces. <i>Langmuir</i> , 2003, 19, 1938-1942.	1.6	134
56	Copper Based Nanomaterials Suppress Root Fungal Disease in Watermelon (<i>Citrullus lanatus</i>): Role of Particle Morphology, Composition and Dissolution Behavior. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14847-14856.	3.2	133
57	Cycloaddition Chemistry of 1,3-Dienes on the Silicon(001) Surface: A Competition between [4 + 2] and [2 + 2] Reactions. <i>Journal of Physical Chemistry B</i> , 1998, 102, 6873-6879.	1.2	132
58	Structure and Bonding of Ordered Organic Monolayers of 1,5-Cyclooctadiene on the Silicon(001) Surface. <i>Journal of Physical Chemistry B</i> , 1997, 101, 9581-9585.	1.2	131
59	Geochemical and biological aspects of sulfide mineral dissolution: lessons from Iron Mountain, California. <i>Chemical Geology</i> , 2000, 169, 383-397.	1.4	129
60	Influence of Humic Acid on Titanium Dioxide Nanoparticle Toxicity to Developing Zebrafish. <i>Environmental Science & Technology</i> , 2013, 47, 4718-4725.	4.6	129
61	Surface Reconstruction and the Nucleation of Palladium Silicide on Si(111). <i>Physical Review Letters</i> , 1988, 60, 2499-2502.	2.9	127
62	Photochemical Functionalization of Hydrogen-Terminated Diamond Surfaces: A Structural and Mechanistic Study. <i>Journal of Physical Chemistry B</i> , 2005, 109, 20938-20947.	1.2	127
63	Formation and Characterization of Organic Monolayers on Semiconductor Surfaces. <i>Annual Review of Analytical Chemistry</i> , 2008, 1, 707-736.	2.8	127
64	Hierarchical Assembly of Nanoparticle Superstructures from Block Copolymer-Nanoparticle Composites. <i>Physical Review Letters</i> , 2008, 100, 148303.	2.9	126
65	Bonding of Nitrogen-Containing Organic Molecules to the Silicon(001) Surface: The Role of Aromaticity. <i>Journal of Physical Chemistry B</i> , 2001, 105, 3759-3768.	1.2	123
66	Electronic Structure of Localized Si Dangling-Bond Defects by Tunneling Spectroscopy. <i>Physical Review Letters</i> , 1988, 60, 2527-2530.	2.9	121
67	Effects of coverage on the geometry and electronic structure of Al overlayers on Si(111). <i>Physical Review B</i> , 1989, 40, 1657-1671.	1.1	121
68	Biological Responses to Engineered Nanomaterials: Needs for the Next Decade. <i>ACS Central Science</i> , 2015, 1, 117-123.	5.3	121
69	Investigation of phosphorous doping effects on polymeric carbon dots: Fluorescence, photostability, and environmental impact. <i>Carbon</i> , 2018, 129, 438-449.	5.4	115
70	Basal-Plane Ligand Functionalization on Semiconducting 2H-MoS ₂ Monolayers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 12734-12742.	4.0	112
71	Atomic Layer Deposited MgO: A Lower Overpotential Coating for Li[Ni _{0.5} Mn _{0.3} Co _{0.2}]O ₂ Cathode. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 11231-11239.	4.0	111
72	Functional Monolayers for Improved Resistance to Protein Adsorption: Oligo(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td	1.6	110

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73	Kinetics, surface chemistry, and structural evolution of microbially mediated sulfide mineral dissolution. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 1243-1258.	1.6	105
74	An atomically resolved scanning tunneling microscopy study of the thermal decomposition of disilane on Si(001). <i>Surface Science</i> , 1994, 311, 64-100.	0.8	103
75	Atomic Structure and Bonding of Boron-Induced Reconstructions on Si(001). <i>Physical Review Letters</i> , 1995, 74, 403-406.	2.9	101
76	Cycloaddition Chemistry at Surfaces: A Reaction of Alkenes with the Diamond(001)-2 Å ⁻¹ Surface. <i>Journal of the American Chemical Society</i> , 2000, 122, 732-733.	6.6	98
77	Advanced material modulation of nutritional and phytohormone status alleviates damage from soybean sudden death syndrome. <i>Nature Nanotechnology</i> , 2020, 15, 1033-1042.	15.6	98
78	Microbial oxidation of pyrite; experiments using microorganisms from an extreme acidic environment. <i>American Mineralogist</i> , 1998, 83, 1444-1453.	0.9	97
79	UV-Induced Grafting of Alkenes to Silicon Surfaces: Photoemission versus Excitons. <i>Journal of the American Chemical Society</i> , 2010, 132, 4048-4049.	6.6	97
80	Quantum States and Atomic Structure of Silicon Surfaces. <i>Science</i> , 1986, 234, 304-309.	6.0	96
81	Frequency-dependent electrical detection of protein binding events. <i>Analyst, The</i> , 2004, 129, 3.	1.7	96
82	Covalent Photochemical Functionalization of Amorphous Carbon Thin Films for Integrated Real-Time Biosensing. <i>Langmuir</i> , 2006, 22, 9598-9605.	1.6	96
83	Ionization of High-Density Deep Donor Defect States Explains the Low Photovoltage of Iron Pyrite Single Crystals. <i>Journal of the American Chemical Society</i> , 2014, 136, 17163-17179.	6.6	95
84	Covalent Functionalization for Biomolecular Recognition on Vertically Aligned Carbon Nanofibers. <i>Chemistry of Materials</i> , 2005, 17, 4971-4978.	3.2	93
85	Designing Efficient Solar-Driven Hydrogen Evolution Photocathodes Using Semitransparent MoQ _x Cl _y (Q = S, Se) Catalysts on Si Micropyramids. <i>Advanced Materials</i> , 2015, 27, 6511-6518.	11.1	93
86	Molecular and biomolecular monolayers on diamond as an interface to biology. <i>Diamond and Related Materials</i> , 2005, 14, 661-668.	1.8	92
87	Selective Photoelectrochemical Reduction of Aqueous CO ₂ to CO by Solvated Electrons. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9746-9750.	7.2	90
88	Fabrication and characterization of a biologically sensitive field-effect transistor using a nanocrystalline diamond thin film. <i>Applied Physics Letters</i> , 2004, 85, 3626-3628.	1.5	89
89	Interaction of π -Conjugated Organic Molecules with π -Bonded Semiconductor Surfaces: Structure, Selectivity, and Mechanistic Implications. <i>Journal of the American Chemical Society</i> , 2000, 122, 8529-8538.	6.6	88
90	Discovery and Elucidation of Counteranion Dependence in Photoredox Catalysis. <i>Journal of the American Chemical Society</i> , 2019, 141, 6385-6391.	6.6	88

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91	Preparation of clean and atomically flat germanium(001) surfaces. <i>Surface Science</i> , 1999, 440, L815-L819.	0.8	87
92	Surface functionalization of thin-film diamond for highly stable and selective biological interfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 983-988.	3.3	87
93	Defect chemistry in CaF ₂ :Eu ³⁺ . <i>Journal of Chemical Physics</i> , 1982, 77, 683-692.	1.2	86
94	Atomic-resolution study of overlayer formation and interfacial mixing in the interaction of phosphorus with Si(001). <i>Physical Review B</i> , 1994, 50, 4534-4547.	1.1	85
95	Direct Chemical Vapor Deposition Synthesis of Phase-Pure Iron Pyrite (FeS ₂) Thin Films. <i>Chemistry of Materials</i> , 2015, 27, 3108-3114.	3.2	85
96	TiO ₂ Nanoparticle Exposure and Illumination during Zebrafish Development: Mortality at Parts per Billion Concentrations. <i>Environmental Science & Technology</i> , 2013, 47, 4726-4733.	4.6	84
97	Kinetics and mechanism of polythionate oxidation to sulfate at low pH by O ₂ and Fe ³⁺ . <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 4457-4469.	1.6	83
98	Transient 2D IR Spectroscopy of Charge Injection in Dye-Sensitized Nanocrystalline Thin Films. <i>Journal of the American Chemical Society</i> , 2009, 131, 18040-18041.	6.6	83
99	Grafting of poly(3-hexylthiophene) brushes on oxides using click chemistry. <i>Journal of Materials Chemistry</i> , 2010, 20, 2651-2658.	6.7	83
100	Multicolor polymeric carbon dots: synthesis, separation and polyamide-supported molecular fluorescence. <i>Chemical Science</i> , 2021, 12, 2441-2455.	3.7	82
101	Ultrafast time resolution in scanned probe microscopies. <i>Applied Physics Letters</i> , 1990, 57, 2031-2033.	1.5	81
102	Complex and Noncentrosymmetric Stacking of Layered Metal Dichalcogenide Materials Created by Screw Dislocations. <i>Journal of the American Chemical Society</i> , 2017, 139, 3496-3504.	6.6	81
103	Quantitative Determination of Ligand Densities on Nanomaterials by X-ray Photoelectron Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 1720-1725.	4.0	79
104	Electrically Addressable Biomolecular Functionalization of Conductive Nanocrystalline Diamond Thin Films. <i>Chemistry of Materials</i> , 2005, 17, 938-940.	3.2	77
105	Functionalized Vertically Aligned Carbon Nanofibers as Scaffolds for Immobilization and Electrochemical Detection of Redox-Active Proteins. <i>Chemistry of Materials</i> , 2006, 18, 4415-4422.	3.2	77
106	Effects of charge and surface ligand properties of nanoparticles on oxidative stress and gene expression within the gut of <i>Daphnia magna</i> . <i>Aquatic Toxicology</i> , 2015, 162, 1-9.	1.9	77
107	Direct Probes of 4 nm Diameter Gold Nanoparticles Interacting with Supported Lipid Bilayers. <i>Journal of Physical Chemistry C</i> , 2015, 119, 534-546.	1.5	77
108	Controlled formation of organic layers on semiconductor surfaces. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1997, 15, 1153.	1.6	76

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109	A scanning tunneling microscope for surface science studies. IBM Journal of Research and Development, 1986, 30, 396-402.	3.2	74
110	Chemical Modification and Patterning of Iodine-Terminated Silicon Surfaces Using Visible Light. Journal of Physical Chemistry B, 2002, 106, 2656-2664.	1.2	74
111	Photochemical Functionalization of Gallium Nitride Thin Films with Molecular and Biomolecular Layers. Langmuir, 2006, 22, 8121-8126.	1.6	74
112	Photochemical Grafting of <i>n</i> -Alkenes onto Carbon Surfaces: the Role of Photoelectron Ejection. Journal of the American Chemical Society, 2007, 129, 13554-13565.	6.6	74
113	Adsorption and Dissociation of Phosphine on Si(001). The Journal of Physical Chemistry, 1996, 100, 4961-4969.	2.9	73
114	A new look at microbial leaching patterns on sulfide minerals. FEMS Microbiology Ecology, 2001, 34, 197-206.	1.3	73
115	Covalent functionalization and biomolecular recognition properties of DNA-modified silicon nanowires. Nanotechnology, 2005, 16, 1868-1873.	1.3	73
116	Crystallographic Facet Dependence of the Hydrogen Evolution Reaction on CoPS: Theory and Experiments. ACS Catalysis, 2018, 8, 1143-1152.	5.5	71
117	Impact of Nanoscale Lithium Nickel Manganese Cobalt Oxide (NMC) on the Bacterium <i>Shewanella oneidensis</i> MR-1. Chemistry of Materials, 2016, 28, 1092-1100.	3.2	70
118	Anode-originated SEI migration contributes to formation of cathode-electrolyte interphase layer. Journal of Power Sources, 2018, 373, 184-192.	4.0	69
119	Time-Dependent Transcriptional Response of Tomato (<i>Solanum lycopersicum</i> L.) to Cu Nanoparticle Exposure upon Infection with <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> . ACS Sustainable Chemistry and Engineering, 2019, 7, 10064-10074.	3.2	69
120	Formation of supported lipid bilayers containing phase-segregated domains and their interaction with gold nanoparticles. Environmental Science: Nano, 2016, 3, 45-55.	2.2	68
121	Phase Separation on an Atomic Scale: The Formation of a Novel Quasiperiodic 2D Structure. Physical Review Letters, 1989, 62, 641-644.	2.9	67
122	Adsorption of Phenyl Isothiocyanate on Si(001): A 1,2-Dipolar Surface Addition Reaction. Journal of Physical Chemistry B, 1999, 103, 6243-6251.	1.2	66
123	A Citric Acid-Derived Ligand for Modular Functionalization of Metal Oxide Surfaces via "Click" Chemistry. Langmuir, 2012, 28, 1322-1329.	1.6	66
124	Solution NMR Analysis of Ligand Environment in Quaternary Ammonium-Terminated Self-Assembled Monolayers on Gold Nanoparticles: The Effect of Surface Curvature and Ligand Structure. Journal of the American Chemical Society, 2019, 141, 4316-4327.	6.6	66
125	Interfacial Chemistry of Pentacene on Clean and Chemically Modified Silicon (001) Surfaces. Journal of Physical Chemistry B, 2003, 107, 11142-11148.	1.2	65
126	Ab Initio Modeling of Electrolyte Molecule Ethylene Carbonate Decomposition Reaction on Li(Ni,Mn,Co)O ₂ Cathode Surface. ACS Applied Materials & Interfaces, 2017, 9, 20545-20553.	4.0	65

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127	Extraction and Quantitative Analysis of Elemental Sulfur from Sulfide Mineral Surfaces by High-Performance Liquid Chromatography. <i>Environmental Science & Technology</i> , 2000, 34, 4651-4655.	4.6	64
128	Chemical mapping of elemental sulfur on pyrite and arsenopyrite surfaces using near-infrared Raman imaging microscopy. <i>Applied Surface Science</i> , 2001, 178, 105-115.	3.1	63
129	Interactions of alkylamines with the silicon (001) surface. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002, 20, 1614.	1.6	62
130	Electrical Properties of Diamond Surfaces Functionalized with Molecular Monolayers. <i>Journal of Physical Chemistry B</i> , 2005, 109, 8523-8532.	1.2	62
131	Using citrate-functionalized TiO ₂ nanoparticles to study the effect of particle size on zebrafish embryo toxicity. <i>Analyst, The</i> , 2014, 139, 964.	1.7	62
132	Natural Organic Matter Concentration Impacts the Interaction of Functionalized Diamond Nanoparticles with Model and Actual Bacterial Membranes. <i>Environmental Science & Technology</i> , 2017, 51, 11075-11084.	4.6	61
133	Structure and Bonding of Ordered Organic Monolayers of 1,3,5,7-Cyclooctatetraene on the Si(001) Surface: Surface Cycloaddition Chemistry of an Antiaromatic Molecule. <i>Journal of Physical Chemistry B</i> , 1998, 102, 687-692.	1.2	60
134	Carbon-on-Metal Films for Surface Plasmon Resonance Detection of DNA Arrays. <i>Journal of the American Chemical Society</i> , 2008, 130, 8611-8613.	6.6	60
135	Fluoride-Modulated Cobalt Catalysts for Electrochemical Oxidation of Water under Non-Alkaline Conditions. <i>ChemSusChem</i> , 2010, 3, 1176-1179.	3.6	60
136	Nanomaterials and Global Sustainability. <i>Accounts of Chemical Research</i> , 2017, 50, 633-637.	7.6	60
137	Direct electrical detection of antigen-antibody binding on diamond and silicon substrates using electrical impedance spectroscopy. <i>Analyst, The</i> , 2007, 132, 296-306.	1.7	59
138	Toxicity of Oxidatively Degraded Quantum Dots to Developing Zebrafish (<i>Danio rerio</i>). <i>Environmental Science & Technology</i> , 2013, 47, 9132-9139.	4.6	59
139	Sulfur Atoms as Tethers for Selective Attachment of Aromatic Molecules to Silicon(001) Surfaces. <i>Journal of Physical Chemistry B</i> , 2001, 105, 3079-3087.	1.2	58
140	Adsorption and dissociation of disilane on Si(001) studied by STM. <i>Surface Science</i> , 1993, 298, 50-62.	0.8	57
141	Reactions of substituted aromatic hydrocarbons with the Si(001) surface. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2000, 18, 1965-1970.	0.9	57
142	Conformational Disorder Enhances Electron Transfer Through Alkyl Monolayers: Ferrocene on Conductive Diamond. <i>Journal of the American Chemical Society</i> , 2013, 135, 5751-5761.	6.6	57
143	Cascading Effects of Nanoparticle Coatings: Surface Functionalization Dictates the Assemblage of Complexed Proteins and Subsequent Interaction with Model Cell Membranes. <i>ACS Nano</i> , 2017, 11, 5489-5499.	7.3	57
144	Dissolution of Complex Metal Oxides from First-Principles and Thermodynamics: Cation Removal from the (001) Surface of Li(Ni _{1/3} Mn _{1/3} Co _{1/3})O ₂ . <i>Environmental Science & Technology</i> , 2018, 52, 5792-5802.	4.6	57

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145	An Atomically Resolved STM Study of the Interaction of Phosphine with the Silicon(001) Surface. The Journal of Physical Chemistry, 1994, 98, 5966-5973.	2.9	56
146	Scanning Tunneling Microscopy of Organic Molecules and Monolayers on Silicon and Germanium (001) Surfaces. Japanese Journal of Applied Physics, 1999, 38, 3879-3887.	0.8	55
147	Fabrication and characterization of vertically aligned carbon nanofiber electrodes for biosensing applications. Diamond and Related Materials, 2006, 15, 433-439.	1.8	55
148	Engineered Nanomaterial Transformation under Oxidative Environmental Conditions: Development of an <i>in vitro</i> Biomimetic Assay. Environmental Science & Technology, 2009, 43, 1598-1604.	4.6	54
149	Nanoscale solid-state quantum computing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1473-1485.	1.6	52
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