Robert J Hamers

List of Publications by Year in descending order

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362 papers 28,408 citations

88 h-index 153 g-index

373 all docs

373 docs citations

times ranked

373

26625 citing authors

#	Article	IF	CITATIONS
1	Detection of Aqueous Solvated Electrons Produced by Photoemission from Solids Using Transient Absorption Measurements. ACS Measurement Science Au, 2022, 2, 46-56.	4.4	8
2	Ag–Diamond Core–Shell Nanostructures Incorporated with Silicon-Vacancy Centers. ACS Materials Au, 2022, 2, 85-93.	6.0	3
3	Expression Patterns of Energy-Related Genes in Single Cells Uncover Key Isoforms and Enzymes That Gain Priority Under Nanoparticle-Induced Stress. ACS Nano, 2022, 16, 7197-7209.	14.6	3
4	Cross-species transcriptomic signatures identify mechanisms related to species sensitivity and common responses to nanomaterials. Nature Nanotechnology, 2022, 17, 661-669.	31.5	8
5	Role of Foliar Biointerface Properties and Nanomaterial Chemistry in Controlling Cu Transfer into Wild-Type and Mutant <i>Arabidopsis thaliana</i> Leaf Tissue. Journal of Agricultural and Food Chemistry, 2022, 70, 4267-4278.	5.2	8
6	Reactivity passivation of red phosphorus with thin plasma-deposited carbon coating. Applied Surface Science, 2022, 587, 152791.	6.1	1
7	Improving Climate and Outcomes for Underrepresented Chemistry Graduate Students at a Major Research University: A Case Study. Journal of Chemical Education, 2022, 99, 452-460.	2.3	4
8	Binding of polar and hydrophobic molecules at the LiCoO $<$ sub $>$ 2 $<$ /sub $>$ (001)-water interface: force field development and molecular dynamics simulations. Nanoscale, 2022, , .	5.6	2
9	Use of Magnetic Modulation of Nitrogen-Vacancy Center Fluorescence in Nanodiamonds for Quantitative Analysis of Nanoparticles in Organisms. ACS Measurement Science Au, 2022, 2, 351-360.	4.4	2
10	Adapting Simultaneous in Operando Electrochemical Quartz Crystal Microbalance (EQCM) and Electrochemical Impedance Spectroscopy (EIS) to Studies of SEI Layer Formation on Amorphous Silicon Anodes. ECS Meeting Abstracts, 2022, MA2022-01, 171-171.	0.0	0
11	Biomolecular corona formation on CuO nanoparticles in plant xylem fluid. Environmental Science: Nano, 2021, 8, 1067-1080.	4.3	18
12	Dynamic aqueous transformations of lithium cobalt oxide nanoparticle induce distinct oxidative stress responses of B. subtilis. Environmental Science: Nano, 2021, 8, 1614-1627.	4.3	3
13	Multicolor polymeric carbon dots: synthesis, separation and polyamide-supported molecular fluorescence. Chemical Science, 2021, 12, 2441-2455.	7.4	82
14	Influence of Sensor Coating and Topography on Protein and Nanoparticle Interaction with Supported Lipid Bilayers. Langmuir, 2021, 37, 2256-2267.	3.5	2
15	Influence of Surface Ligand Molecular Structure on Phospholipid Membrane Disruption by Cationic Nanoparticles. Langmuir, 2021, 37, 7600-7610.	3.5	6
16	High-Density Covalent Grafting of Spin-Active Molecular Moieties to Diamond Surfaces. Langmuir, 2021, 37, 9222-9231.	3.5	3
17	Reciprocal redox interactions of lithium cobalt oxide nanoparticles with nicotinamide adenine dinucleotide (NADH) and glutathione (GSH): toward a mechanistic understanding of nanoparticle-biological interactions. Environmental Science: Nano, 2021, 8, 1749-1760.	4.3	7
18	Energy Starvation in Daphnia magna from Exposure to a Lithium Cobalt Oxide Nanomaterial. Chemical Research in Toxicology, 2021, 34, 2287-2297.	3.3	9

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19	Preferential interactions of primary amine-terminated quantum dots with membrane domain boundaries and lipid rafts revealed with nanometer resolution. Environmental Science: Nano, 2020, 7, 149-161.	4.3	12
20	Nickel enrichment of next-generation NMC nanomaterials alters material stability, causing unexpected dissolution behavior and observed toxicity to <i>S. oneidensis</i> MR-1 and <i>D. magna</i> Environmental Science: Nano, 2020, 7, 571-587.	4.3	18
21	Selective imaging of diamond nanoparticles within complex matrices using magnetically induced fluorescence contrast. Environmental Science: Nano, 2020, 7, 525-534.	4.3	14
22	Nanoscale battery cathode materials induce DNA damage in bacteria. Chemical Science, 2020, 11, 11244-11258.	7.4	8
23	Advanced material modulation of nutritional and phytohormone status alleviates damage from soybean sudden death syndrome. Nature Nanotechnology, 2020, 15, 1033-1042.	31.5	98
24	Subtoxic dose of lithium cobalt oxide nanosheets impacts critical molecular pathways in trout gill epithelial cells. Environmental Science: Nano, 2020, 7, 3419-3430.	4.3	4
25	Protein Fe–S Centers as a Molecular Target of Toxicity of a Complex Transition Metal Oxide Nanomaterial with Downstream Impacts on Metabolism and Growth. Environmental Science & Eamp; Technology, 2020, 54, 15257-15266.	10.0	9
26	Anionic nanoparticle-induced perturbation to phospholipid membranes affects ion channel function. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27854-27861.	7.1	24
27	Copper Nanomaterial Morphology and Composition Control Foliar Transfer through the Cuticle and Mediate Resistance to Root Fungal Disease in Tomato (<i>Solanum lycopersicum</i>). Journal of Agricultural and Food Chemistry, 2020, 68, 11327-11338.	5.2	42
28	Interfacial water and ion distribution determine $\langle i \rangle \hat{\mathbf{I}} \P \langle i \rangle$ potential and binding affinity of nanoparticles to biomolecules. Nanoscale, 2020, 12, 18106-18123.	5.6	14
29	Adjoint-optimized nanoscale light extractor for enhanced luminescence from color centers in diamond. , 2020, , .		1
30	Influence of the Spatial Distribution of Cationic Functional Groups at Nanoparticle Surfaces on Bacterial Viability and Membrane Interactions. Journal of the American Chemical Society, 2020, 142, 10814-10823.	13.7	45
31	Emerging investigator series: first-principles and thermodynamics comparison of compositionally-tuned delafossites: cation release from the (001) surface of complex metal oxides. Environmental Science: Nano, 2020, 7, 1642-1651.	4.3	11
32	High Temperature Treatment of Diamond Particles Toward Enhancement of Their Quantum Properties. Frontiers in Physics, 2020, 8, .	2.1	11
33	Surface properties and interactions of transition metal oxide nanoparticles: A perspective on sustainability. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	9
34	DFT and thermodynamics calculations of surface cation release in LiCoO2. Applied Surface Science, 2020, 515, 145865.	6.1	34
35	Cobalt Release from a Nanoscale Multiphase Lithiated Cobalt Phosphate Dominates Interaction with Shewanella oneidensis MR-1 and Bacillus subtilis SB491. Chemical Research in Toxicology, 2020, 33, 806-816.	3.3	9
36	Energy Storage Materials as Emerging Nano-contaminants. Chemical Research in Toxicology, 2020, 33, 1074-1081.	3.3	11

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37	Adjoint-optimized nanoscale light extractor for nitrogen-vacancy centers in diamond. Nanophotonics, 2020, 10, 393-401.	6.0	13
38	Facile benchtop reactor design using dendrimer-templating technology for the fabrication of polyethyleneimine-coated CuO nanoparticles on the gram scale. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 041402.	2.1	1
39	UV–Vis and Photoluminescence Spectroscopy to Understand the Coordination of Cu Cations in the Zeolite SSZ-13. Chemistry of Materials, 2019, 31, 9582-9592.	6.7	19
40	Chronic exposure to complex metal oxide nanoparticles elicits rapid resistance in <i>Shewanella oneidensis</i> MR-1. Chemical Science, 2019, 10, 9768-9781.	7.4	22
41	Biological impact of nanoscale lithium intercalating complex metal oxides to model bacteriumB. subtilis. Environmental Science: Nano, 2019, 6, 305-314.	4.3	9
42	Two-Phase Synthesis of Gold–Copper Bimetallic Nanoparticles of Tunable Composition: Toward Optimized Catalytic CO ₂ Reduction. ACS Applied Nano Materials, 2019, 2, 3989-3998.	5.0	22
43	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.	6.7	69
44	Molecular Surface Functionalization of Carbon Materials via Radical-Induced Grafting of Terminal Alkenes. Journal of the American Chemical Society, 2019, 141, 8277-8288.	13.7	31
45	Discovery and Elucidation of Counteranion Dependence in Photoredox Catalysis. Journal of the American Chemical Society, 2019, 141, 6385-6391.	13.7	88
46	Next-Generation Complex Metal Oxide Nanomaterials Negatively Impact Growth and Development in the Benthic Invertebrate <i>Chironomus riparius</i> upon Settling. Environmental Science & Eamp; Technology, 2019, 53, 3860-3870.	10.0	29
47	Quantitative Mapping of Oxidative Stress Response to Lithium Cobalt Oxide Nanoparticles in Single Cells Using Multiplexed <i>in Situ</i> Gene Expression Analysis. Nano Letters, 2019, 19, 1990-1997.	9.1	25
48	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.	13.7	66
49	Interaction of Phosphate with Lithium Cobalt Oxide Nanoparticles: A Combined Spectroscopic and Calorimetric Study. Langmuir, 2019, 35, 16640-16649.	3.5	16
50	Enhancing Electrochemical Efficiency of Hydroxyl Radical Formation on Diamond Electrodes by Functionalization with Hydrophobic Monolayers. Langmuir, 2019, 35, 2153-2163.	3.5	42
51	Removing Defects in WSe ₂ via Surface Oxidation and Etching to Improve Solar Conversion Performance. ACS Energy Letters, 2019, 4, 102-109.	17.4	18
52	Nanoscale Surface Photovoltage Mapping of 2D Materials and Heterostructures by Illuminated Kelvin Probe Force Microscopy. Journal of Physical Chemistry C, 2018, 122, 13564-13571.	3.1	30
53	Dissolution of Complex Metal Oxides from First-Principles and Thermodynamics: Cation Removal from the (001) Surface of Li(Ni $<$ sub $>1/3sub>Mn<sub>1/3sub>Co<sub>1/3sub>O<sub>2sub>Environmental Science & Technology, 2018, 52, 5792-5802.$	10.0	57
54	Highly Active Trimetallic NiFeCr Layered Double Hydroxide Electrocatalysts for Oxygen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1703189.	19.5	509

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55	Enhanced Photocatalytic Activity of Diamond Thin Films Using Embedded Ag Nanoparticles. ACS Applied Materials & Samp; Interfaces, 2018, 10, 5395-5403.	8.0	17
56	Crystallographic Facet Dependence of the Hydrogen Evolution Reaction on CoPS: Theory and Experiments. ACS Catalysis, 2018, 8, 1143-1152.	11.2	71
57	Influence of Nanoparticle Morphology on Ion Release and Biological Impact of Nickel Manganese Cobalt Oxide (NMC) Complex Oxide Nanomaterials. ACS Applied Nano Materials, 2018, 1, 1721-1730.	5.0	25
58	Analysis of the conformational properties of amine ligands at the gold/water interface with QM, MM and QM/MM simulations. Physical Chemistry Chemical Physics, 2018, 20, 3349-3362.	2.8	15
59	Optically Detected Magnetic Resonance for Selective Imaging of Diamond Nanoparticles. Analytical Chemistry, 2018, 90, 769-776.	6.5	14
60	Anode-originated SEI migration contributes to formation of cathode-electrolyte interphase layer. Journal of Power Sources, 2018, 373, 184-192.	7.8	69
61	Impact of lithiated cobalt oxide and phosphate nanoparticles on rainbow trout gill epithelial cells. Nanotoxicology, 2018, 12, 1166-1181.	3.0	20
62	Density, Structure, and Stability of Citrate ^{3–} and H ₂ citrate [–] on Bare and Coated Gold Nanoparticles. Journal of Physical Chemistry C, 2018, 122, 28393-28404.	3.1	23
63	Quantification of Lipid Corona Formation on Colloidal Nanoparticles from Lipid Vesicles. Analytical Chemistry, 2018, 90, 14387-14394.	6.5	41
64	Copper Based Nanomaterials Suppress Root Fungal Disease in Watermelon (<i>Citrullus lanatus</i>): Role of Particle Morphology, Composition and Dissolution Behavior. ACS Sustainable Chemistry and Engineering, 2018, 6, 14847-14856.	6.7	133
65	First-Principles and Thermodynamics Study of Compositionally Tuned Complex Metal Oxides: Cation Release from the (001) Surface of Mn-Rich Lithium Nickel Manganese Cobalt Oxide. Inorganic Chemistry, 2018, 57, 13300-13311.	4.0	33
66	Lipid Corona Formation from Nanoparticle Interactions with Bilayers. CheM, 2018, 4, 2709-2723.	11.7	46
67	Quaternary Amine-Terminated Quantum Dots Induce Structural Changes to Supported Lipid Bilayers. Langmuir, 2018, 34, 12369-12378.	3.5	18
68	Tunable coloration of diamond films by encapsulation of plasmonic Ag nanoparticles. Diamond and Related Materials, 2018, 89, 190-196.	3.9	2
69	Impact of Phosphate Adsorption on Complex Cobalt Oxide Nanoparticle Dispersibility in Aqueous Media. Environmental Science & Eamp; Technology, 2018, 52, 10186-10195.	10.0	27
70	Chemically Derived Kirigami of WSe ₂ . Journal of the American Chemical Society, 2018, 140, 10980-10987.	13.7	33
71	Size dependent oxidative stress response of the gut of Daphnia magna to functionalized nanodiamond particles. Environmental Research, 2018, 167, 267-275.	7. 5	23
72	Investigation of phosphorous doping effects on polymeric carbon dots: Fluorescence, photostability, and environmental impact. Carbon, 2018, 129, 438-449.	10.3	115

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73	Malic Acid Carbon Dots: From Super-resolution Live-Cell Imaging to Highly Efficient Separation. ACS Nano, 2018, 12, 5741-5752.	14.6	135
74	Growth-Based Bacterial Viability Assay for Interference-Free and High-Throughput Toxicity Screening of Nanomaterials. Analytical Chemistry, 2017, 89, 2057-2064.	6.5	45
75	<i>Ab Initio</i> Atomistic Thermodynamics Study of the (001) Surface of LiCoO ₂ in a Water Environment and Implications for Reactivity under Ambient Conditions. Journal of Physical Chemistry C, 2017, 121, 5069-5080.	3.1	37
76	Core chemistry influences the toxicity of multicomponent metal oxide nanomaterials, lithium nickel manganese cobalt oxide, and lithium cobalt oxide to <i>Daphnia magna</i> . Environmental Toxicology and Chemistry, 2017, 36, 2493-2502.	4.3	49
77	A Hybrid Molecular Dynamics/Multiconformer Continuum Electrostatics (MD/MCCE) Approach for the Determination of Surface Charge of Nanomaterials. Journal of Physical Chemistry C, 2017, 121, 3584-3596.	3.1	14
78	Influence of nickel manganese cobalt oxide nanoparticle composition on toxicity toward Shewanella oneidensis MR-1: redesigning for reduced biological impact. Environmental Science: Nano, 2017, 4, 636-646.	4.3	27
79	Atomic Layer Deposited MgO: A Lower Overpotential Coating for Li[Ni _{0.5} Mn _{0.3} Co _{0.2}]O ₂ Cathode. ACS Applied Materials & Samp; Interfaces, 2017, 9, 11231-11239.	8.0	111
80	Complex and Noncentrosymmetric Stacking of Layered Metal Dichalcogenide Materials Created by Screw Dislocations. Journal of the American Chemical Society, 2017, 139, 3496-3504.	13.7	81
81	Unoccupied surface state induced by ozone and ammonia on H-terminated diamond electrodes for photocatalytic ammonia synthesis. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 04D102.	2.1	5
82	Cascading Effects of Nanoparticle Coatings: Surface Functionalization Dictates the Assemblage of Complexed Proteins and Subsequent Interaction with Model Cell Membranes. ACS Nano, 2017, 11, 5489-5499.	14.6	57
83	Carbon Dots: A Modular Activity To Teach Fluorescence and Nanotechnology at Multiple Levels. Journal of Chemical Education, 2017, 94, 1143-1149.	2.3	28
84	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.	8.0	65
85	Stabilization of the Metastable Lead Iodide Perovskite Phase via Surface Functionalization. Nano Letters, 2017, 17, 4405-4414.	9.1	204
86	Basal-Plane Ligand Functionalization on Semiconducting 2H-MoS ₂ Monolayers. ACS Applied Materials & Samp; Interfaces, 2017, 9, 12734-12742.	8.0	112
87	Cell design and image analysis for in situ Raman mapping of inhomogeneous state-of-charge profiles in lithium-ion batteries. Journal of Power Sources, 2017, 352, 18-25.	7.8	26
88	Nanomaterials and Global Sustainability. Accounts of Chemical Research, 2017, 50, 633-637.	15.6	60
89	Quantification of Free Polyelectrolytes Present in Colloidal Suspension, Revealing a Source of Toxic Responses for Polyelectrolyte-Wrapped Gold Nanoparticles. Analytical Chemistry, 2017, 89, 1823-1830.	6.5	29
90	Dynamics and Morphology of Nanoparticle-Linked Polymers Elucidated by Nuclear Magnetic Resonance. Analytical Chemistry, 2017, 89, 12399-12407.	6.5	26

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91	Photocatalytic reduction of CO2 to CO by diamond nanoparticles. Diamond and Related Materials, 2017, 78, 24-30.	3.9	38
92	Natural Organic Matter Concentration Impacts the Interaction of Functionalized Diamond Nanoparticles with Model and Actual Bacterial Membranes. Environmental Science & Enviro	10.0	61
93	Evidence for Considerable Metal Cation Concentrations from Lithium Intercalation Compounds in the Nano–Bio Interface Gap. Journal of Physical Chemistry C, 2017, 121, 27473-27482.	3.1	13
94	Thermal and Hydrolytic Decomposition Mechanisms of Organosilicon Electrolytes with Enhanced Thermal Stability for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2017, 164, A1907-A1917.	2.9	21
95	Optimizing AlF3 atomic layer deposition using trimethylaluminum and TaF5: Application to high voltage Li-ion battery cathodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	32
96	Atmosphericâ€pressure photoelectron emission from Hâ€terminated and aminoâ€terminated diamond (Phys.) Tj	ETQq0 0	0 rgBT /Over
97	Atomic Layer Deposition of Al ₂ O ₃ –Ga ₂ O ₃ Alloy Coatings for Li[Ni _{0.5} Mn _{0.3} Co _{0.2}]O ₂ Cathode to Improve Rate Performance in Li-Ion Battery. ACS Applied Materials & Samp; Interfaces, 2016, 8, 10572-10580.	8.0	51
98	Orientation Control of Selected Organic Semiconductor Crystals Achieved by Monolayer Graphene Templates. Advanced Materials Interfaces, 2016, 3, 1600621.	3.7	16
99	Color-Pure Violet-Light-Emitting Diodes Based on Layered Lead Halide Perovskite Nanoplates. ACS Nano, 2016, 10, 6897-6904.	14.6	378
100	On Electronic and Charge Interference in Second Harmonic Generation Responses from Gold Metal Nanoparticles at Supported Lipid Bilayers. Journal of Physical Chemistry C, 2016, 120, 20659-20667.	3.1	29
101	Atmosphericâ€pressure photoelectron emission from Hâ€terminated and aminoâ€terminated diamond. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2069-2074.	1.8	2
102	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.	6.7	70
103	Amino-terminated diamond surfaces: Photoelectron emission and photocatalytic properties. Surface Science, 2016, 650, 295-301.	1.9	26
104	Photocatalytic reduction of nitrogen to ammonia on diamond thin films grown on metallic substrates. Diamond and Related Materials, 2016, 64, 34-41.	3.9	20
105	Formation of supported lipid bilayers containing phase-segregated domains and their interaction with gold nanoparticles. Environmental Science: Nano, 2016, 3, 45-55.	4.3	68
106	Designing Efficient Solarâ€Driven Hydrogen Evolution Photocathodes Using Semitransparent MoQ <i></i> Cl <i></i> (Q = S, Se) Catalysts on Si Micropyramids. Advanced Materials, 2015, 27, 6511-6518.	21.0	93
107	Biological Responses to Engineered Nanomaterials: Needs for the Next Decade. ACS Central Science, 2015, 1, 117-123.	11.3	121
108	Amorphous MoS _x Cl _y electrocatalyst supported by vertical graphene for efficient electrochemical and photoelectrochemical hydrogen generation. Energy and Environmental Science, 2015, 8, 862-868.	30.8	183

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109	Electrolyte Dependence of CO ₂ Electroreduction: Tetraalkylammonium Ions Are Not Electrocatalysts. ACS Catalysis, 2015, 5, 703-707.	11.2	40
110	Molecular Orientation-Dependent Interfacial Energetics and Built-in Voltage Tuned by a Template Graphene Monolayer. Journal of Physical Chemistry C, 2015, 119, 45-54.	3.1	29
111	Observing Electron Extraction by Monolayer Graphene Using Time-Resolved Surface Photoresponse Measurements. ACS Nano, 2015, 9, 2510-2517.	14.6	10
112	Impacts of gold nanoparticle charge and ligand type on surface binding and toxicity to Gram-negative and Gram-positive bacteria. Chemical Science, 2015, 6, 5186-5196.	7.4	203
113	Solution Growth of Single Crystal Methylammonium Lead Halide Perovskite Nanostructures for Optoelectronic and Photovoltaic Applications. Journal of the American Chemical Society, 2015, 137, 5810-5818.	13.7	368
114	Effects of charge and surface ligand properties of nanoparticles on oxidative stress and gene expression within the gut of Daphnia magna. Aquatic Toxicology, 2015, 162, 1-9.	4.0	77
115	Direct Chemical Vapor Deposition Synthesis of Phase-Pure Iron Pyrite (FeS ₂) Thin Films. Chemistry of Materials, 2015, 27, 3108-3114.	6.7	85
116	Alteration of Membrane Compositional Asymmetry by LiCoO2 Nanosheets. ACS Nano, 2015, 9, 8755-8765.	14.6	38
117	Measurement of Ultrafast Excitonic Dynamics of Few-Layer MoS ₂ Using State-Selective Coherent Multidimensional Spectroscopy. ACS Nano, 2015, 9, 12146-12157.	14.6	33
118	Molecular Electronic Effects on the Thermal Grafting of Aryl Iodides to $TiO < sub > 2 < sub > Surfaces$. Journal of Physical Chemistry C, 2015, 119, 27972-27981.	3.1	0
119	Quantitative Determination of Ligand Densities on Nanomaterials by X-ray Photoelectron Spectroscopy. ACS Applied Materials & Spectroscopy. ACS App	8.0	79
120	Direct Probes of 4 nm Diameter Gold Nanoparticles Interacting with Supported Lipid Bilayers. Journal of Physical Chemistry C, 2015, 119, 534-546.	3.1	77
121	Frontispiece: Selective Photoelectrochemical Reduction of Aqueous CO2to CO by Solvated Electrons. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a.	13.8	0
122	Role of surface contaminants, functionalities, defects and electronic structure: general discussion. Faraday Discussions, 2014, 172, 365-395.	3.2	1
123	Correction to An Explicit Consideration of Desolvation is Critical to Binding Free Energy Calculations of Charged Molecules at Ionic Surfaces. Journal of Chemical Theory and Computation, 2014, 10, 5738-5738.	5.3	0
124	Selective Photoelectrochemical Reduction of Aqueous CO ₂ to CO by Solvated Electrons. Angewandte Chemie - International Edition, 2014, 53, 9746-9750.	13.8	90
125	Efficient Photoelectrochemical Hydrogen Generation Using Heterostructures of Si and Chemically Exfoliated Metallic MoS ₂ . Journal of the American Chemical Society, 2014, 136, 8504-8507.	13.7	379
126	Boron Doped diamond films as electron donors in photovoltaics: An X-ray absorption and hard X-ray photoemission study. Journal of Applied Physics, 2014, 116, .	2.5	7

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127	Surface chemistry, charge and ligand type impact the toxicity of gold nanoparticles to <i>Daphnia magna</i> . Environmental Science: Nano, 2014, 1, 260-270.	4.3	143
128	Carbon electrode interfaces for synthesis, sensing and electrocatalysis: general discussion. Faraday Discussions, 2014, 172, 497-520.	3.2	1
129	Ionization of High-Density Deep Donor Defect States Explains the Low Photovoltage of Iron Pyrite Single Crystals. Journal of the American Chemical Society, 2014, 136, 17163-17179.	13.7	95
130	Facile method to stain the bacterial cell surface for super-resolution fluorescence microscopy. Analyst, The, 2014, 139, 3174-3178.	3.5	20
131	Using citrate-functionalized TiO2 nanoparticles to study the effect of particle size on zebrafish embryo toxicity. Analyst, The, 2014, 139, 964.	3.5	62
132	Surface functionalization and biological applications of CVD diamond. MRS Bulletin, 2014, 39, 517-524.	3.5	48
133	Enhancing Graduate Student Communication to General Audiences through Blogging about Nanotechnology and Sustainability. Journal of Chemical Education, 2014, 91, 1600-1605.	2.3	21
134	Highly active hydrogen evolution catalysis from metallic WS ₂ nanosheets. Energy and Environmental Science, 2014, 7, 2608-2613.	30.8	660
135	Photoemission from diamond films and substrates into water: dynamics of solvated electrons and implications for diamond photoelectrochemistry. Faraday Discussions, 2014, 172, 397-411.	3.2	27
136	Integrated Hamiltonian Sampling: A Simple and Versatile Method for Free Energy Simulations and Conformational Sampling. Journal of Physical Chemistry B, 2014, 118, 8210-8220.	2.6	14
137	Mechanism of N ₂ Reduction to NH ₃ by Aqueous Solvated Electrons. Journal of Physical Chemistry B, 2014, 118, 195-203.	2.6	49
138	Versatile Approach to Formation of Light-Harvesting Complexes on Nanostructured Metal Oxide Surfaces via "On-Surface―Assembly. Chemistry of Materials, 2014, 26, 3651-3659.	6.7	3
139	The Legacy of Heini Rohrer. E-Journal of Surface Science and Nanotechnology, 2014, 12, 151-153.	0.4	0
140	Conformational Disorder Enhances Electron Transfer Through Alkyl Monolayers: Ferrocene on Conductive Diamond. Journal of the American Chemical Society, 2013, 135, 5751-5761.	13.7	57
141	An Explicit Consideration of Desolvation is Critical to Binding Free Energy Calculations of Charged Molecules at Ionic Surfaces. Journal of Chemical Theory and Computation, 2013, 9, 5059-5069.	5.3	30
142	Photostability of CdSe Quantum Dots Functionalized with Aromatic Dithiocarbamate Ligands. ACS Applied Materials & Dithiocarbamate Ligan	8.0	43
143	Face-Selective Etching of ZnO during Attachment of Dyes. Journal of Physical Chemistry C, 2013, 117, 18414-18422.	3.1	7
144	Influence of Hole-Sequestering Ligands on the Photostability of CdSe Quantum Dots. Journal of Physical Chemistry C, 2013, 117, 313-320.	3.1	29

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145	Design of solar cell materials via soft X-ray spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2013, 190, 2-11.	1.7	15
146	Thermal and electrochemical stability of organosilicon electrolytes for lithium-ion batteries. Journal of Power Sources, 2013, 241, 311-319.	7.8	19
147	Influence of Humic Acid on Titanium Dioxide Nanoparticle Toxicity to Developing Zebrafish. Environmental Science & Environmental Science & Environment	10.0	129
148	TiO ₂ Nanoparticle Exposure and Illumination during Zebrafish Development: Mortality at Parts per Billion Concentrations. Environmental Science & Environmental Science & 2013, 47, 4726-4733.	10.0	84
149	Modular Synthesis of Alkyne-Substituted Ruthenium Polypyridyl Complexes Suitable for "Click― Coupling. Inorganic Chemistry, 2013, 52, 2796-2798.	4.0	18
150	Facile post-growth doping of nanostructured hematite photoanodes for enhanced photoelectrochemical water oxidation. Energy and Environmental Science, 2013, 6, 500-512.	30.8	220
151	Photo-illuminated diamond as a solid-state sourceÂof solvated electrons in water for nitrogenÂreduction. Nature Materials, 2013, 12, 836-841.	27.5	834
152	Toxicity of Oxidatively Degraded Quantum Dots to Developing Zebrafish (Danio rerio). Environmental Science & Environmental Sci	10.0	59
153	Electronic structure of Fe- vs. Ru-based dye molecules. Journal of Chemical Physics, 2013, 138, 044709.	3.0	13
154	Titanium dioxide nanoparticles produce phototoxicity in the developing zebrafish. Nanotoxicology, 2012, 6, 670-679.	3.0	136
155	A Citric Acid-Derived Ligand for Modular Functionalization of Metal Oxide Surfaces via "Click― Chemistry. Langmuir, 2012, 28, 1322-1329.	3.5	66
156	Synthesis and Properties of Semiconducting Iron Pyrite (FeS ₂) Nanowires. Nano Letters, 2012, 12, 1977-1982.	9.1	164
157	Preparation and measurement methods for studying nanoparticle aggregate surface chemistry. Journal of Environmental Monitoring, 2012, 14, 1914.	2.1	13
158	Electronic Structure of Diamond Surfaces Functionalized by Ru(tpy) ₂ . Journal of Physical Chemistry C, 2012, 116, 13877-13883.	3.1	21
159	Molecular Adsorption on ZnO(101ì0) Single-Crystal Surfaces: Morphology and Charge Transfer. Langmuir, 2012, 28, 10437-10445.	3.5	49
160	Photochemical Grafting of Organic Alkenes to Single-Crystal TiO ₂ Surfaces: A Mechanistic Study. Langmuir, 2012, 28, 12085-12093.	3.5	12
161	Covalent Attachment of Catalyst Molecules to Conductive Diamond: CO ₂ Reduction Using "Smart―Electrodes. Journal of the American Chemical Society, 2012, 134, 15632-15635.	13.7	177
162	Chemically Directed Assembly of Photoactive Metal Oxide Nanoparticle Heterojunctions ⟨i⟩via⟨ i⟩ the Copper-Catalyzed Azideâ€"Alkyne Cycloaddition "Click―Reaction. ACS Nano, 2012, 6, 310-318.	14.6	40

#	Article	lF	CITATIONS
163	Facile Solution Synthesis of α-FeF ₃ ·3H ₂ O Nanowires and Their Conversion to α-Fe ₂ O ₃ Nanowires for Photoelectrochemical Application. Nano Letters, 2012, 12, 724-731.	9.1	198
164	Formation of Self-Assembled Monolayers of π-Conjugated Molecules on TiO ₂ Surfaces by Thermal Grafting of Aryl and Benzyl Halides. Langmuir, 2012, 28, 6866-6876.	3.5	12
165	Chemically assembled heterojunctions of SnO2 nanorods with TiO2 nanoparticles via "click― chemistry. Journal of Materials Chemistry, 2012, 22, 11561.	6.7	12
166	A quantitative study of detection mechanism of a label-free impedance biosensor using ultrananocrystalline diamond microelectrode array. Biosensors and Bioelectronics, 2012, 35, 284-290.	10.1	50
167	Nanotextured gold coatings on carbon nanofiber scaffolds as ultrahigh surface-area electrodes. Journal of Power Sources, 2012, 198, 393-401.	7.8	22
168	Molecular-Scale Structure of a Nitrobenzene Monolayer on Si(001). Journal of Physical Chemistry C, 2011, 115, 3011-3017.	3.1	6
169	Ultraviolet-Induced Grafting of Alkenes to TiO ₂ Surfaces: Controlling Multilayer Formation. Journal of Physical Chemistry C, 2011, 115, 17102-17110.	3.1	22
170	Attachment of Protoporphyrin Dyes to Nanostructured ZnO Surfaces: Characterization by Near Edge X-ray Absorption Fine Structure Spectroscopy. Journal of Physical Chemistry C, 2011, 115, 18195-18201.	3.1	41
171	Highly Stable Redox-Active Molecular Layers by Covalent Grafting to Conductive Diamond. Journal of the American Chemical Society, 2011, 133, 5692-5694.	13.7	51
172	Formation of Smooth, Conformal Molecular Layers on ZnO Surfaces via Photochemical Grafting. Langmuir, 2011, 27, 10604-10614.	3.5	15
173	Formation of Molecular Monolayers on TiO ₂ Surfaces: A Surface Analogue of the Williamson Ether Synthesis. Langmuir, 2011, 27, 6879-6889.	3.5	26
174	Surface functionalization of thin-film diamond for highly stable and selective biological interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 983-988.	7.1	87
175	Modular "Click―Chemistry for Electrochemically and Photoelectrochemically Active Molecular Interfaces to Tin Oxide Surfaces. ACS Applied Materials & Interfaces, 2011, 3, 3110-3119.	8.0	38
176	Characterization of molecular and biomolecular layers on diamond thin films by infrared reflection–absorption spectroscopy. Diamond and Related Materials, 2011, 20, 733-742.	3.9	5
177	Infrared spectroscopy for characterization of biomolecular interfaces., 2011,, 57-82.		2
178	Control of Nanoscale Environment to Improve Stability of Immobilized Proteins on Diamond Surfaces. Advanced Functional Materials, 2011, 21, 1040-1050.	14.9	33
179	Nonlinear spectroscopy on charge transfer interfaces. Proceedings of SPIE, 2011, , .	0.8	0
180	Molecular control of pentacene/ZnO photoinduced charge transfer. Applied Physics Letters, 2011, 98, .	3.3	9

#	Article	IF	Citations
181	Molecular and biomolecular interfaces to metal oxide semiconductors. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 200-205.	0.8	11
182	Grafting of poly(3-hexylthiophene) brushes on oxides using click chemistry. Journal of Materials Chemistry, 2010, 20, 2651-2658.	6.7	83
183	Bridge-Dependent Interfacial Electron Transfer from Rheniumâ^'Bipyridine Complexes to TiO ₂ Nanocrystalline Thin Films. Journal of Physical Chemistry C, 2010, 114, 9898-9907.	3.1	42
184	UV-Induced Grafting of Alkenes to Silicon Surfaces: Photoemission versus Excitons. Journal of the American Chemical Society, 2010, 132, 4048-4049.	13.7	97
185	Photochemical Grafting of Alkenes onto Carbon Surfaces: Identifying the Roles of Electrons and Holes. Journal of Physical Chemistry C, 2010, 114, 4067-4074.	3.1	38
186	Surface Chemistry for Stable and Smart Molecular and Biomolecular Interfaces via Photochemical Grafting of Alkenes. Accounts of Chemical Research, 2010, 43, 1205-1215.	15.6	51
187	Covalent Functionalization and Electron-Transfer Properties of Vertically Aligned Carbon Nanofibers: The Importance of Edge-Plane Sites. Chemistry of Materials, 2010, 22, 2357-2366.	6.7	43
188	Fluorideâ€Modulated Cobalt Catalysts for Electrochemical Oxidation of Water under Nonâ€Alkaline Conditions. ChemSusChem, 2010, 3, 1176-1179.	6.8	60
189	Synthesis and characterization of alkylsilane ethers with oligo(ethylene oxide) substituents for safe electrolytes in lithium-ion batteries. Journal of Materials Chemistry, 2010, 20, 8224.	6.7	31
190	Detection of DNA hybridisation on a functionalised diamond surface using reflection anisotropy spectroscopy. Europhysics Letters, 2009, 85, 18006.	2.0	9
191	Assembly of Nanocrystal Arrays by Blockâ€Copolymerâ€Directed Nucleation. Angewandte Chemie - International Edition, 2009, 48, 2135-2139.	13.8	17
192	Engineered Nanomaterial Transformation under Oxidative Environmental Conditions: Development of an <i>in vitro</i> Biomimetic Assay. Environmental Science & Environmental Sci	10.0	54
193	Highly Stable Molecular Layers on Nanocrystalline Anatase TiO ₂ through Photochemical Grafting. Langmuir, 2009, 25, 10676-10684.	3.5	38
194	Photochemical Grafting and Patterning of Biomolecular Layers onto TiO2 Thin Films. ACS Applied Materials & Samp; Interfaces, 2009, 1, 1013-1022.	8.0	35
195	Influence of Surface Termination and Electronic Structure on the Photochemical Grafting of Alkenes to Carbon Surfaces. Journal of Physical Chemistry C, 2009, 113, 1526-1535.	3.1	23
196	Covalent Grafting of Redox-Active Molecules to Vertically Aligned Carbon Nanofiber Arrays via "Click―Chemistry. Chemistry of Materials, 2009, 21, 724-730.	6.7	49
197	Transient 2D IR Spectroscopy of Charge Injection in Dye-Sensitized Nanocrystalline Thin Films. Journal of the American Chemical Society, 2009, 131, 18040-18041.	13.7	83
198	Gastrointestinal biodurability of engineered nanoparticles: Development of an <i>in vitro</i> i>assay. Nanotoxicology, 2009, 3, 202-214.	3.0	45

#	Article	IF	Citations
199	Sulfide Treatment of ZnO Single Crystals and Nanorods and the Effect on P3HTâ^'ZnO Photovoltaic Device Properties. Journal of Physical Chemistry C, 2009, 113, 21147-21154.	3.1	30
200	Quantum Dot Nanotoxicity Assessment Using the Zebrafish Embryo. Environmental Science & Emp; Technology, 2009, 43, 1605-1611.	10.0	221
201	Predicting the Results of Chemical Vapor Deposition Growth of Suspended Carbon Nanotubes. Nano Letters, 2009, 9, 1806-1811.	9.1	9
202	Chemoselective Nanowire Fuses: Chemically Induced Cleavage and Electrical Detection of Carbon Nanofiber Bridges. Small, 2008, 4, 795-801.	10.0	5
203	Dipolar Chromophore Functional Layers in Organic Field Effect Transistors. Advanced Materials, 2008, 20, 4180-4184.	21.0	10
204	Grafting of molecular layers to oxidized gallium nitride surfaces via phosphonic acid linkages. Surface Science, 2008, 602, 2382-2388.	1.9	49
205	Diamonds are for tethers. Nature, 2008, 454, 708-709.	27.8	17
206	Formation and Characterization of Organic Monolayers on Semiconductor Surfaces. Annual Review of Analytical Chemistry, 2008, 1, 707-736.	5.4	127
207	Hierarchical Assembly of Nanoparticle Superstructures from Block Copolymer-Nanoparticle Composites. Physical Review Letters, 2008, 100, 148303.	7.8	126
208	Enhancement of Photochemical Grafting of Terminal Alkenes at Surfaces via Molecular Mediators:  The Role of Surface-Bound Electron Acceptors. Journal of Physical Chemistry C, 2008, 112, 5102-5112.	3.1	28
209	Discrimination between Bacillus Species by Impedance Analysis of Individual Dielectrophoretically Positioned Spores. Analytical Chemistry, 2008, 80, 3757-3761.	6.5	18
210	Covalent Grafting of Ferrocene to Vertically Aligned Carbon Nanofibers: Electron-transfer Processes at Nanostructured Electrodes. Journal of Physical Chemistry C, 2008, 112, 16910-16918.	3.1	29
211	Carbon-on-Metal Films for Surface Plasmon Resonance Detection of DNA Arrays. Journal of the American Chemical Society, 2008, 130, 8611-8613.	13.7	60
212	Molecular-scale structural distortion near vacancies in pentacene. Applied Physics Letters, 2008, 92, 153313.	3.3	7
213	Photo-induced surface functionalization of carbon surfaces: The role of photoelectron ejection. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 925-931.	2.1	7
214	Imaging layers for the directed assembly of block copolymer films: Dependence of the physical and chemical properties of patterned polymer brushes on brush molecular weight. Journal of Vacuum Science & Technology B, 2007, 25, 1958-1962.	1.3	13
215	Single-crystal silicon/silicon dioxide multilayer heterostructures based on nanomembrane transfer. Applied Physics Letters, 2007, 90, 183107.	3.3	19
216	Direct electrical detection of antigen–antibody binding on diamond and silicon substrates using electrical impedance spectroscopy. Analyst, The, 2007, 132, 296-306.	3.5	59

#	Article	IF	Citations
217	Molecular Monolayers Enhance the Formation of Electrocatalytic Platinum Nanoparticles on Vertically Aligned Carbon Nanofiber Scaffolds. Journal of Physical Chemistry C, 2007, 111, 7260-7265.	3.1	25
218	Epitaxial Growth of Large Pentacene Crystals on Si(001) Surfaces Functionalized with Molecular Monolayers. Journal of Physical Chemistry C, 2007, 111, 16489-16497.	3.1	15
219	Vertically Aligned Carbon Nanofibers Coupled with Organosilicon Electrolytes:  Electrical Properties of a High-Stability Nanostructured Electrochemical Interface. Chemistry of Materials, 2007, 19, 5734-5741.	6.7	24
220	Photodetector Arrays Directly Assembled onto Polymer Substrates from Aqueous Solution. Journal of the American Chemical Society, 2007, 129, 14296-14302.	13.7	50
221	Direct Photopatterning and SEM Imaging of Molecular Monolayers on Diamond Surfaces:  Mechanistic Insights into UV-Initiated Molecular Grafting. Langmuir, 2007, 23, 11623-11630.	3.5	31
222	Covalent molecular functionalization of diamond thin-film transistors. Diamond and Related Materials, 2007, 16, 1608-1615.	3.9	18
223	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.	13.7	74
224	Functional Selfâ€Assembled Monolayers for Optimized Photoinduced Charge Transfer in Organic Field Effect Transistors. Advanced Materials, 2007, 19, 4353-4357.	21.0	42
225	Dielectrophoretic Manipulation and Realâ€Time Electrical Detection of Singleâ€Nanowire Bridges in Aqueous Saline Solutions. Small, 2007, 3, 1610-1617.	10.0	15
226	Reaction of acetonitrile with the silicon(001) surface: A combined XPS and FTIR study. Surface Science, 2007, 601, 945-953.	1.9	24
227	Fabrication and characterization of vertically aligned carbon nanofiber electrodes for biosensing applications. Diamond and Related Materials, 2006, 15, 433-439.	3.9	55
228	Effect of Ozone Oxidation on Single-Walled Carbon Nanotubes. Journal of Physical Chemistry B, 2006, 110, 7113-7118.	2.6	208
229	Ultrahigh-Surface-Area Metallic Electrodes by Templated Electroless Deposition on Functionalized Carbon Nanofiber Scaffolds. Chemistry of Materials, 2006, 18, 5398-5400.	6.7	30
230	Covalent Photochemical Functionalization of Amorphous Carbon Thin Films for Integrated Real-Time Biosensing. Langmuir, 2006, 22, 9598-9605.	3.5	96
231	Electrical Bias Dependent Photochemical Functionalization of Diamond Surfaces. Journal of Physical Chemistry B, 2006, 110, 16535-16543.	2.6	24
232	Semiconductor Surface-Induced 1,3-Hydrogen Shift:Â The Role of Covalent vs Zwitterionic Character. Journal of the American Chemical Society, 2006, 128, 11054-11061.	13.7	12
233	Photochemical Functionalization of Gallium Nitride Thin Films with Molecular and Biomolecular Layers. Langmuir, 2006, 22, 8121-8126.	3.5	74
234	Functionalized Vertically Aligned Carbon Nanofibers as Scaffolds for Immobilization and Electrochemical Detection of Redox-Active Proteins. Chemistry of Materials, 2006, 18, 4415-4422.	6.7	77

#	Article	IF	Citations
235	Critical Oxide Thickness for Efficient Single-Walled Carbon Nanotube Growth on Silicon Using Thin SiO2 Diffusion Barriers. Small, 2006, 2, 902-909.	10.0	37
236	Passivation and activation: How do monovalent atoms modify the reactivity of silicon surfaces?. Surface Science, 2006, 600, 3361-3362.	1.9	11
237	Electrically directed assembly and detection of nanowire bridges in aqueous media. Nanotechnology, 2006, 17, S280-S286.	2.6	24
238	Photogating carbon nanotube transistors. Journal of Applied Physics, 2006, 100, 084306.	2.5	52
239	Bond breaking at surfaces: Electrons or phonons?. Surface Science, 2005, 583, 1-3.	1.9	12
240	Covalent functionalization and biomolecular recognition properties of DNA-modified silicon nanowires. Nanotechnology, 2005, 16, 1868-1873.	2.6	73
241	Electrical characterization of nanowire bridges incorporating biomolecular recognition elements. Nanotechnology, 2005, 16, 2846-2851.	2.6	19
242	Molecular and biomolecular monolayers on diamond as an interface to biology. Diamond and Related Materials, 2005, 14, 661-668.	3.9	92
243	Manipulation and Real-Time Electrical Detection of Individual Bacterial Cells at Electrode Junctions:  A Model for Assembly of Nanoscale Biosystems. Nano Letters, 2005, 5, 777-781.	9.1	33
244	Electrically Addressable Biomolecular Functionalization of Conductive Nanocrystalline Diamond Thin Films. Chemistry of Materials, 2005, 17, 938-940.	6.7	77
245	Functional Monolayers for Improved Resistance to Protein Adsorption:  Oligo(ethylene) Tj ETQq1 1 0.78431	4 rgBT /Ov	erlock 10 Tf
246	Covalent Functionalization for Biomolecular Recognition on Vertically Aligned Carbon Nanofibers. Chemistry of Materials, 2005, 17, 4971-4978.	6.7	93
247	Electrical Properties of Diamond Surfaces Functionalized with Molecular Monolayersâ€. Journal of Physical Chemistry B, 2005, 109, 8523-8532.	2.6	62
248	Adsorption of Acrylonitrile on Diamond and Silicon (001) \hat{a} '(2 \tilde{A} — 1) Surfaces: \hat{A} Effects of Dimer Structure on Reaction Pathways and Product Distributions. Journal of the American Chemical Society, 2005, 127, 8348-8354.	13.7	24
249	Interfacing Biological Molecules with Group IV Semiconductors for Bioelectronic Sensing. , 2005, , 209-230.		3
250	Photochemical Functionalization of Hydrogen-Terminated Diamond Surfaces:Â A Structural and Mechanistic Study. Journal of Physical Chemistry B, 2005, 109, 20938-20947.	2.6	127
251	Fabrication and characterization of a biologically sensitive field-effect transistor using a nanocrystalline diamond thin film. Applied Physics Letters, 2004, 85, 3626-3628.	3.3	89
252	Invasive cleavage reactions on DNA-modified diamond surfaces. Biopolymers, 2004, 73, 606-613.	2.4	52

#	Article	IF	Citations
253	Direct electrical detection of hybridization at DNA-modified silicon surfaces. Biosensors and Bioelectronics, 2004, 19, 1013-1019.	10.1	161
254	Frequency-dependent electrical detection of protein binding events. Analyst, The, 2004, 129, 3.	3.5	96
255	A Photopatternable Pentacene Precursor for Use in Organic Thin-Film Transistors. Journal of the American Chemical Society, 2004, 126, 12740-12741.	13.7	135
256	Interfacial Electrical Properties of DNA-Modified Diamond Thin Films:Â Intrinsic Response and Hybridization-Induced Field Effects. Langmuir, 2004, 20, 6778-6787.	3.5	143
257	Electrically Addressable Biomolecular Functionalization of Carbon Nanotube and Carbon Nanofiber Electrodes. Nano Letters, 2004, 4, 1713-1716.	9.1	150
258	Covalently Modified Silicon and Diamond Surfaces:Â Resistance to Nonspecific Protein Adsorption and Optimization for Biosensing. Journal of the American Chemical Society, 2004, 126, 10220-10221.	13.7	189
259	Kinetics and Mechanism of Trithionate and Tetrathionate Oxidation at Low pH by Hydroxyl Radicals. Aquatic Geochemistry, 2003, 9, 145-164.	1.3	31
260	Molecular and dissociative bonding of amines with the Si-($7\tilde{A}$ -7) surface. Surface Science, 2003, 523, 241-251.	1.9	29
261	DNA-Modified Diamond Surfaces. Langmuir, 2003, 19, 1938-1942.	3.5	134
262	Formation of an Atomically Abrupt Interface between a Polycyclic Aromatic Molecule and the Silicon (001) Surface via Direct Siâ ⁻ C Linkage. Journal of Physical Chemistry B, 2003, 107, 224-228.	2.6	19
263	Interfacial Chemistry of Pentacene on Clean and Chemically Modified Silicon (001) Surfaces. Journal of Physical Chemistry B, 2003, 107, 11142-11148.	2.6	65
264	Optical and Electronic Anisotropy of a π-Conjugated Molecular Monolayer on the Silicon(001) Surface. Journal of Physical Chemistry B, 2003, 107, 7689-7695.	2.6	34
265	Kinetics and mechanism of polythionate oxidation to sulfate at low pH by O2 and Fe3+. Geochimica Et Cosmochimica Acta, 2003, 67, 4457-4469.	3.9	83
266	Nanoscale solid-state quantum computing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1473-1485.	3.4	52
267	Interactions of alkylamines with the silicon (001) surface. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 1614.	1.6	62
268	Covalently-linked Adducts of Single-walled Nanotubes with Biomolecules: Synthesis, Hybridization, and Biologically-Directed Surface Assembly. Materials Research Society Symposia Proceedings, 2002, 737, 581.	0.1	1
269	Covalently-linked Adducts of Single-walled Nanotubes with Biomolecules: Synthesis, Hybridization, and Biologically-Directed Surface Assembly. Materials Research Society Symposia Proceedings, 2002, 761, 1.	0.1	0
270	Formation of a Surface-Mediated Donorâ [^] Acceptor Complex:Â Coadsorption of Trimethylamine and Boron Trifluoride on the Silicon (001) Surface. Journal of Physical Chemistry B, 2002, 106, 1840-1842.	2.6	49

#	Article	IF	Citations
271	DNA Attachment and Hybridization at the Silicon (100) Surface. Langmuir, 2002, 18, 788-796.	3.5	190
272	Chemical Modification and Patterning of Iodine-Terminated Silicon Surfaces Using Visible Light. Journal of Physical Chemistry B, 2002, 106, 2656-2664.	2.6	74
273	Photochemical Functionalization of Diamond Films. Langmuir, 2002, 18, 968-971.	3.5	250
274	Covalently Bonded Adducts of Deoxyribonucleic Acid (DNA) Oligonucleotides with Single-Wall Carbon Nanotubes:Â Synthesis and Hybridization. Nano Letters, 2002, 2, 1413-1417.	9.1	367
275	Preparation and Electrochemical Characterization of DNA-modified Nanocrystalline Diamond Films. Materials Research Society Symposia Proceedings, 2002, 737, 569.	0.1	1
276	Formation of ¨E-conjugated molecular arrays on silicon (001) surfaces by heteroatomic Diels–Alder chemistry. Surface Science, 2002, 514, 362-375.	1.9	46
277	The role of Pi-conjugation in attachment of organic molecules to the silicon (001) surface. Surface Science, 2002, 515, 75-86.	1.9	51
278	DNA-modified nanocrystalline diamond thin-films as stable, biologically active substrates. Nature Materials, 2002, 1, 253-257.	27.5	802
279	Kinetics, surface chemistry, and structural evolution of microbially mediated sulfide mineral dissolution. Geochimica Et Cosmochimica Acta, 2001, 65, 1243-1258.	3.9	105
280	Bonding of Nitrogen-Containing Organic Molecules to the Silicon(001) Surface:  The Role of Aromaticity. Journal of Physical Chemistry B, 2001, 105, 3759-3768.	2.6	123
281	Rapid Arsenite Oxidation byThermus aquaticusandThermus thermophilus:Â Field and Laboratory Investigations. Environmental Science & Environmental Scien	10.0	223
282	Silicon Surfaces as Electron Acceptors:Â Dative Bonding of Amines with Si(001) and Si(111) Surfaces. Journal of the American Chemical Society, 2001, 123, 10988-10996.	13.7	191
283	Sulfur Atoms as Tethers for Selective Attachment of Aromatic Molecules to Silicon(001) Surfaces. Journal of Physical Chemistry B, 2001, 105, 3079-3087.	2.6	58
284	Chemical mapping of elemental sulfur on pyrite and arsenopyrite surfaces using near-infrared Raman imaging microscopy. Applied Surface Science, 2001, 178, 105-115.	6.1	63
285	Quantitative determination of elemental sulfur at the arsenopyrite surface after oxidation by ferric iron: mechanistic implications. Geochemical Transactions, 2001, 2, 1.	0.7	21
286	A new look at microbial leaching patterns on sulfide minerals. FEMS Microbiology Ecology, 2001, 34, 197-206.	2.7	73
287	Flexible electronic futures. Nature, 2001, 412, 489-490.	27.8	173
288	π bond versus radical character of the diamond (1 0 0)-2×1 surface. Materials Chemistry and Physics, 2001, 72, 147-151.	4.0	10

#	Article	IF	Citations
289	A new look at microbial leaching patterns on sulfide minerals. FEMS Microbiology Ecology, 2001, 34, 197-206.	2.7	5
290	Cycloaddition Chemistry of Organic Molecules with Semiconductor Surfaces. Accounts of Chemical Research, 2000, 33, 617-624.	15.6	408
291	Ultrathin Organic Layers on Silicon Surfaces. Japanese Journal of Applied Physics, 2000, 39, 4366-4371.	1.5	15
292	Reactions of substituted aromatic hydrocarbons with the Si(001) surface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 1965-1970.	2.1	57
293	Geochemical and biological aspects of sulfide mineral dissolution: lessons from Iron Mountain, California. Chemical Geology, 2000, 169, 383-397.	3.3	129
294	Cycloaddition chemistry on germanium (001) surfaces: the adsorption and reaction of cyclopentene and cyclohexene. Surface Science, 2000, 462, 6-18.	1.9	50
295	Synthesis and Characterization of DNA-Modified Silicon (111) Surfaces. Journal of the American Chemical Society, 2000, 122, 1205-1209.	13.7	432
296	Covalent attachment of oligodeoxyribonucleotides to amine-modified Si (001) surfaces. Nucleic Acids Research, 2000, 28, 3535-3541.	14.5	272
297	Cycloaddition Chemistry at Surfaces: Â Reaction of Alkenes with the Diamond (001)-2 \tilde{A} — 1 Surface. Journal of the American Chemical Society, 2000, 122, 732-733.	13.7	98
298	Interaction of π-Conjugated Organic Molecules with π-Bonded Semiconductor Surfaces:  Structure, Selectivity, and Mechanistic Implications. Journal of the American Chemical Society, 2000, 122, 8529-8538.	13.7	88
299	Extraction and Quantitative Analysis of Elemental Sulfur from Sulfide Mineral Surfaces by High-Performance Liquid Chromatography. Environmental Science & Echnology, 2000, 34, 4651-4655.	10.0	64
300	Scanning Tunneling Microscopy of Organic Molecules and Monolayers on Silicon and Germanium (001) Surfaces. Japanese Journal of Applied Physics, 1999, 38, 3879-3887.	1.5	55
301	Enhanced Adsorption of Molecules on Surfaces of Nanocrystalline Particles. Journal of Physical Chemistry B, 1999, 103, 4656-4662.	2.6	238
302	Preparation of clean and atomically flat germanium (001) surfaces. Surface Science, 1999, 440, L815-L819.	1.9	87
303	Geomicrobiology of Pyrite (FeS2) Dissolution: Case Study at Iron Mountain, California. Geomicrobiology Journal, 1999, 16, 155-179.	2.0	158
304	Adsorption of Phenyl Isothiocyanate on Si(001):  A 1,2-Dipolar Surface Addition Reaction. Journal of Physical Chemistry B, 1999, 103, 6243-6251.	2.6	66
305	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. Journal of Physical Chemistry B, 1998, 102, 687-692.	2.6	60
306	An X-ray photoelectron spectroscopy study of the bonding of unsaturated organic molecules to the Si(001) surface. Surface Science, 1998, 416, 354-362.	1.9	145

#	Article	IF	Citations
307	Voltage-Dependent STM Images of Covalently Bound Molecules on Si(100). Journal of Physical Chemistry B, 1998, 102, 8541-8545.	2.6	33
308	Cycloaddition Chemistry on Silicon(001) Surfaces:  The Adsorption of Azo-tert-butane. Journal of Physical Chemistry B, 1998, 102, 8510-8518.	2.6	30
309	Cycloaddition Chemistry of 1,3-Dienes on the Silicon(001) Surface:Â Competition between $[4 + 2]$ and $[2 + 2]$ Reactions. Journal of Physical Chemistry B, 1998, 102, 6873-6879.	2.6	132
310	Distribution of Thiobacillus ferrooxidans and Leptospirillum ferrooxidans: Implications for Generation of Acid Mine Drainage. Science, 1998, 279, 1519-1522.	12.6	315
311	Microbial oxidation of pyrite; experiments using microorganisms from an extreme acidic environment. American Mineralogist, 1998, 83, 1444-1453.	1.9	97
312	Microbial oxidation of pyrite; experiments using microorganisms from an extreme acidic environment. American Mineralogist, 1998, 83, 1444-1453.	1.9	8
313	Controlled formation of organic layers on semiconductor surfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1153.	1.6	76
314	Structure and Bonding of Ordered Organic Monolayers of 1,5-Cyclooctadiene on the Silicon(001) Surface. Journal of Physical Chemistry B, 1997, 101, 9581-9585.	2.6	131
315	Formation of Ordered, Anisotropic Organic Monolayers on the Si(001) Surface. Journal of Physical Chemistry B, 1997, 101, 1489-1492.	2.6	225
316	Stereoselectivity in Moleculeâ^'Surface Reactions:Â Adsorption of Ethylene on the Silicon(001) Surface. Journal of the American Chemical Society, 1997, 119, 7593-7594.	13.7	138
317	Chapter 3. PROCESSES AT MINERALS AND SURFACES WITH RELEVANCE TO MICROORGANISMS AND PREBIOTIC SYNTHESIS., 1997,, 81-122.		22
318	Chlorine-Induced Restructuring of Ag(111) Films Observed by Scanning Tunneling Microscopy. Journal of Catalysis, 1997, 172, 406-413.	6.2	27
319	The chemistry of gallium deposition on Si(001) from trimethylgallium: an atomically resolved STM study. Surface Science, 1996, 348, 311-324.	1.9	11
320	Chemical dissolution of the galena (001) surface observed using electrochemical scanning tunneling microscopy. Geochimica Et Cosmochimica Acta, 1996, 60, 3067-3073.	3.9	25
321	Atomically-Resolved Studies of the Chemistry and Bonding at Silicon Surfaces. Chemical Reviews, 1996, 96, 1261-1290.	47.7	172
322	Atomicallyâ€Resolved Investigations of Surface Reaction Chemistry by Scanning Tunneling Microscopy. Israel Journal of Chemistry, 1996, 36, 11-24.	2.3	3
323	Atomic-level spatial distributions of dopants on silicon surfaces: toward a microscopic understanding of surface chemical reactivity. Applied Surface Science, 1996, 107, 25-34.	6.1	30
324	Adsorption and Dissociation of Phosphine on Si(001). The Journal of Physical Chemistry, 1996, 100, 4961-4969.	2.9	73

#	Article	IF	CITATIONS
325	Combined scanning tunneling microscopy and infrared spectroscopy study of the interaction of diborane with Si(001). Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 1038.	1.6	13
326	Boronâ€induced reconstructions of Si(001) investigated by scanning tunneling microscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 1431-1437.	2.1	41
327	Atomic Structure and Bonding of Boron-Induced Reconstructions on Si(001). Physical Review Letters, 1995, 74, 403-406.	7.8	101
328	Boronâ€induced morphology changes in silicon chemical vapor deposition: A scanning tunneling microscopy study. Applied Physics Letters, 1995, 66, 2057-2059.	3.3	21
329	Atomically resolved scanning tunneling microscopy study of the adsorption and dissociation of methylchloride on Si(001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 777-781.	2.1	46
330	Direct observation of oriented molecular adsorption at step edges: a cryogenic scanning tunneling microscopy study. Surface Science, 1995, 334, L709-L714.	1.9	34
331	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
332	Direct dimerâ€byâ€dimer identification of clean and monohydride dimers on the Si(001) surface by scanning tunneling microscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2051-2057.	2.1	28
333	Atomic-resolution study of overlayer formation and interfacial mixing in the interaction of phosphorus with Si(001). Physical Review B, 1994, 50, 4534-4547.	3.2	85
334	An atomically resolved scanning tunneling microscopy study of the thermal decomposition of disilane on Si(001). Surface Science, 1994, 311, 64-100.	1.9	103
335	Electrostatic sample-tip interactions in the scanning tunneling microscope. Physical Review Letters, 1993, 70, 2471-2474.	7.8	214
336	Adsorption and dissociation of disilane on Si(001) studied by STM. Surface Science, 1993, 298, 50-62.	1.9	57
337	Antiphase boundaries as nucleation centers in low-temperature silicon epitaxial growth. Physical Review B, 1993, 48, 12361-12364.	3.2	41
338	Atomic-Scale Imaging with the Scanning Tunneling Microscope. MRS Bulletin, 1991, 16, 22-26.	3.5	9
339	Ultrafast time resolution in scanned probe microscopies. Applied Physics Letters, 1990, 57, 2031-2033.	3.3	81
340	Atomically resolved carrier recombination at Si(111)-7Ã $-$ 7 surfaces. Physical Review Letters, 1990, 64, 1051-1054.	7.8	140
341	Finite-temperature phase diagram of vicinal Si(100) surfaces. Physical Review Letters, 1990, 64, 2406-2409.	7.8	315
342	Dimer strings, anisotropic growth, and persistent layer-by-layer epitaxy. Physical Review B, 1989, 40, 11951-11954.	3.2	41

#	Article	IF	CITATIONS
343	Direct observation of the precession of individual paramagnetic spins on oxidized silicon surfaces. Physical Review Letters, 1989, 62, 2531-2534.	7.8	222
344	Hamers and Demuth reply. Physical Review Letters, 1989, 62, 2424-2424.	7.8	0
345	Atomic-Resolution Surface Spectroscopy with the Scanning Tunneling Microscope. Annual Review of Physical Chemistry, 1989, 40, 531-559.	10.8	173
346	Nucleation and growth of epitaxial silicon on $Si(001)$ and $Si(111)$ surfaces by scanning tunneling microscopy. Ultramicroscopy, 1989, 31, 10-19.	1.9	153
347	Phase Separation on an Atomic Scale: The Formation of a Novel Quasiperiodic 2D Structure. Physical Review Letters, 1989, 62, 641-644.	7.8	67
348	Effects of coverage on the geometry and electronic structure of Al overlayers on Si(111). Physical Review B, 1989, 40, 1657-1671.	3.2	121
349	Tunneling microscopy, lithography, and surface diffusion on an easily prepared, atomically flat gold surface. Journal of Applied Physics, 1988, 63, 717-721.	2.5	137
350	Surface Reconstruction and the Nucleation of Palladium Silicide on Si(111). Physical Review Letters, 1988, 60, 2499-2502.	7.8	127
351	Electronic Structure of Localized Si Dangling-Bond Defects by Tunneling Spectroscopy. Physical Review Letters, 1988, 60, 2527-2530.	7.8	121
352	Imaging chemical-bond formation with the scanning tunneling microscope:NH3dissociation on Si(001). Physical Review Letters, 1987, 59, 2071-2074.	7.8	331
353	Electronic and geometric structure of Si(111)-(7 \tilde{A} — 7) and Si(001) surfaces. Surface Science, 1987, 181, 346-355.	1.9	251
354	Local electron states and surface geometry of Si(111)-â^š3 â^š3Ag. Physical Review Letters, 1987, 58, 373-376.	7.8	249
355	Scanning tunneling microscopy of Si(001). Physical Review B, 1986, 34, 5343-5357.	3.2	824
356	A scanning tunneling microscope for surface science studies. IBM Journal of Research and Development, 1986, 30, 396-402.	3.1	74
357	Quantum States and Atomic Structure of Silicon Surfaces. Science, 1986, 234, 304-309.	12.6	96
358	Surface Electronic Structure of Si (111)-(7×7) Resolved in Real Space. Physical Review Letters, 1986, 56, 1972-1975.	7.8	1,116
359	Atomic and electronic contributions to $Si(111)$ - $(7\tilde{A}-7)$ scanning-tunneling-microscopy images. Physical Review B, 1986, 34, 1388-1391.	3.2	192
360	Si(001) Dimer Structure Observed with Scanning Tunneling Microscopy. Physical Review Letters, 1985, 55, 1303-1306.	7.8	636

#		Article	IF	CITATIONS
36	61	Defect chemistry in CaF2:Eu3+. Journal of Chemical Physics, 1982, 77, 683-692.	3.0	86
36	62	DNA-Modified Diamond Surfaces. , 0, , .		8