Robert J Hamers

List of Publications by Citations

351 papers	24,702 citations	82 h-index	144 g-index
371 ext. papers	26,495 ext. citations	8.3 avg, IF	6.99 L-index

#	Paper	IF	Citations
351	Surface electronic structure of Si(111)-(7x7) resolved in real space. *Physical Review Letters*, **1986**, 56, 1972-1975	7.4	993
350	Scanning tunneling microscopy of Si(001). *Physical Review B*, **1986**, 34, 5343-5357	3.3	790
349	DNA-modified nanocrystalline diamond thin-films as stable, biologically active substrates. *Nature Materials*, **2002**, 1, 253-7	27	744
348	Photo-illuminated diamond as a solid-state source of solvated electrons in water for nitrogen reduction. *Nature Materials*, **2013**, 12, 836-41	27	645
347	Si(001) Dimer structure observed with scanning tunneling microscopy. *Physical Review Letters*, **1985** , 55, 1303-1306	7.4	600
346	Highly active hydrogen evolution catalysis from metallic WS2 nanosheets. *Energy and Environmental Science*, **2014**, 7, 2608-2613	35.4	579
345	Synthesis and Characterization of DNA-Modified Silicon (111) Surfaces. *Journal of the American Chemical Society*, **2000**, 122, 1205-1209	16.4	409
344	Cycloaddition chemistry of organic molecules with semiconductor surfaces. *Accounts of Chemical Research*, **2000**, 33, 617-24	24.3	381
343	Highly Active Trimetallic NiFeCr Layered Double Hydroxide Electrocatalysts for Oxygen Evolution Reaction. *Advanced Energy Materials*, **2018**, 8, 1703189	21.8	342
342	Efficient photoelectrochemical hydrogen generation using heterostructures of Si and chemically exfoliated metallic MoS2. *Journal of the American Chemical Society*, **2014**, 136, 8504-7	16.4	334
341	Covalently Bonded Adducts of Deoxyribonucleic Acid (DNA) Oligonucleotides with Single-Wall Carbon Nanotubes:Synthesis and Hybridization. *Nano Letters*, **2002**, 2, 1413-1417	11.5	331
340	Solution growth of single crystal methylammonium lead halide perovskite nanostructures for optoelectronic and photovoltaic applications. *Journal of the American Chemical Society*, **2015**, 137, 5810-8	16.4	323
339	Color-Pure Violet-Light-Emitting Diodes Based on Layered Lead Halide Perovskite Nanoplates. *ACS Nano*, **2016**, 10, 6897-904	16.7	321
338	Imaging chemical-bond formation with the scanning tunneling microscope: NH3 dissociation on Si(001). *Physical Review Letters*, **1987**, 59, 2071-2074	7.4	309
337	Finite-temperature phase diagram of vicinal Si(100) surfaces. *Physical Review Letters*, **1990**, 64, 2406-2409	7.4	290
336	Distribution of thiobacillus ferrooxidans and leptospirillum ferrooxidans: implications for generation of acid mine drainage. *Science*, **1998**, 279, 1519-22	33.3	265
335	Covalent attachment of oligodeoxyribonucleotides to amine-modified Si (001) surfaces. *Nucleic Acids Research*, **2000**, 28, 3535-41	20.1	248

334	Photochemical Functionalization of Diamond Films. *Langmuir*, **2002**, 18, 968-971	4	229
333	Local electron states and surface geometry of Si(111)- sqrt 3 sqrt 3 Ag. *Physical Review Letters*, **1987**, 58, 373-376	7.4	228
332	Enhanced Adsorption of Molecules on Surfaces of Nanocrystalline Particles. *Journal of Physical Chemistry B*, **1999**, 103, 4656-4662	3.4	217
331	Electronic and geometric structure of Si(111)-(7 □7) and Si(001) surfaces. *Surface Science*, **1987**, 181, 346-355	1.8	215
330	Formation of Ordered, Anisotropic Organic Monolayers on the Si(001) Surface. *Journal of Physical Chemistry B*, **1997**, 101, 1489-1492	3.4	208
329	Quantum dot nanotoxicity assessment using the zebrafish embryo. *Environmental Science & Technology*, **2009**, 43, 1605-11	10.3	201
328	Facile post-growth doping of nanostructured hematite photoanodes for enhanced photoelectrochemical water oxidation. *Energy and Environmental Science*, **2013**, 6, 500-512	35.4	198
327	Direct observation of the precession of individual paramagnetic spins on oxidized silicon surfaces. *Physical Review Letters*, **1989**, 62, 2531-2534	7.4	196
326	Electrostatic sample-tip interactions in the scanning tunneling microscope. *Physical Review Letters*, **1993**, 70, 2471-2474	7.4	195
325	Facile solution synthesis of □FeF3□3H2O nanowires and their conversion to □Fe2O3 nanowires for photoelectrochemical application. *Nano Letters*, **2012**, 12, 724-31	11.5	190
324	Effect of ozone oxidation on single-walled carbon nanotubes. *Journal of Physical Chemistry B*, **2006**, 110, 7113-8	3.4	190
323	Rapid arsenite oxidation by Thermus aquaticus and Thermus thermophilus: field and laboratory investigations. *Environmental Science & Technology*, **2001**, 35, 3857-62	10.3	188
322	Covalently modified silicon and diamond surfaces: resistance to nonspecific protein adsorption and optimization for biosensing. *Journal of the American Chemical Society*, **2004**, 126, 10220-1	16.4	183
321	Atomic and electronic contributions to Si(111)-(7 x 7) scanning-tunneling-microscopy images. *Physical Review B*, **1986**, 34, 1388-1391	3.3	183
320	DNA Attachment and Hybridization at the Silicon (100) Surface. *Langmuir*, **2002**, 18, 788-796	4	177
319	Silicon surfaces as electron acceptors: dative bonding of amines with Si(001) and Si(111) surfaces. *Journal of the American Chemical Society*, **2001**, 123, 10988-96	16.4	177
318	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	9.4	162
317	Amorphous MoSxCly electrocatalyst supported by vertical graphene for efficient electrochemical and photoelectrochemical hydrogen generation. *Energy and Environmental Science*, **2015**, 8, 862-868	35.4	162

316	Atomically-Resolved Studies of the Chemistry and Bonding at Silicon Surfaces. *Chemical Reviews*, **1996**, 96, 1261-1290	68.1	158
315	Covalent attachment of catalyst molecules to conductive diamond: CO2 reduction using "smart" electrodes. *Journal of the American Chemical Society*, **2012**, 134, 15632-5	16.4	155
314	Atomic-Resolution Surface Spectroscopy with the Scanning Tunneling Microscope. *Annual Review of Physical Chemistry*, **1989**, 40, 531-559	15.7	153
313	Stabilization of the Metastable Lead Iodide Perovskite Phase via Surface Functionalization. *Nano Letters*, **2017**, 17, 4405-4414	11.5	151
312	Nucleation and growth of epitaxial silicon on Si(001) and Si(111) surfaces by scanning tunneling microscopy. *Ultramicroscopy*, **1989**, 31, 10-19	3.1	151
311	Direct electrical detection of hybridization at DNA-modified silicon surfaces. *Biosensors and Bioelectronics*, **2004**, 19, 1013-9	11.8	149
310	Synthesis and properties of semiconducting iron pyrite (FeS2) nanowires. *Nano Letters*, **2012**, 12, 1977-82	11.5	145
309	Electrically Addressable Biomolecular Functionalization of Carbon Nanotube and Carbon Nanofiber Electrodes. *Nano Letters*, **2004**, 4, 1713-1716	11.5	142
308	Interfacial electrical properties of DNA-modified diamond thin films: intrinsic response and hybridization-induced field effects. *Langmuir*, **2004**, 20, 6778-87	4	137
307	An X-ray photoelectron spectroscopy study of the bonding of unsaturated organic molecules to the Si(001) surface. *Surface Science*, **1998**, 416, 354-362	1.8	136
306	Geomicrobiology of Pyrite (FeS2) Dissolution: Case Study at Iron Mountain, California. *Geomicrobiology Journal*, **1999**, 16, 155-179	2.5	136
305	Stereoselectivity in Molecule-Surface Reactions: Adsorption of Ethylene on the Silicon(001) Surface. *Journal of the American Chemical Society*, **1997**, 119, 7593-7594	16.4	130
304	DNA-Modified Diamond Surfaces. *Langmuir*, **2003**, 19, 1938-1942	4	130
303	Atomically resolved carrier recombination at Si(111)-7 x 7 surfaces. *Physical Review Letters*, **1990**, 64, 1051-1054	7.4	129
302	A photopatternable pentacene precursor for use in organic thin-film transistors. *Journal of the American Chemical Society*, **2004**, 126, 12740-1	16.4	127
301	Tunneling microscopy, lithography, and surface diffusion on an easily prepared, atomically flat gold surface. *Journal of Applied Physics*, **1988**, 63, 717-721	2.5	126
300	Cycloaddition Chemistry of 1,3-Dienes on the Silicon(001) Surface: Competition between [4 + 2] and [2 + 2] Reactions. *Journal of Physical Chemistry B*, **1998**, 102, 6873-6879	3.4	125
299	Surface chemistry, charge and ligand type impact the toxicity of gold nanoparticles to Daphnia magna. *Environmental Science: Nano*, **2014**, 1, 260-270	7.1	124

298	Formation and characterization of organic monolayers on semiconductor surfaces. *Annual Review of Analytical Chemistry*, **2008**, 1, 707-36	12.5	124
297	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	3.4	123
296	Photochemical functionalization of hydrogen-terminated diamond surfaces: a structural and mechanistic study. *Journal of Physical Chemistry B*, **2005**, 109, 20938-47	3.4	119
295	Influence of humic acid on titanium dioxide nanoparticle toxicity to developing zebrafish. *Environmental Science & Technology*, **2013**, 47, 4718-25	10.3	118
294	Hierarchical assembly of nanoparticle superstructures from block copolymer-nanoparticle composites. *Physical Review Letters*, **2008**, 100, 148303	7.4	118
293	Effects of coverage on the geometry and electronic structure of Al overlayers on Si(111). *Physical Review B*, **1989**, 40, 1657-1671	3.3	118
292	Surface reconstruction and the nucleation of palladium silicide on Si(111). *Physical Review Letters*, **1988**, 60, 2499-2502	7.4	118
291	Bonding of Nitrogen-Containing Organic Molecules to the Silicon(001) Surface: The Role of Aromaticity *Journal of Physical Chemistry B*, **2001**, 105, 3759-3768	3.4	115
290	Electronic structure of localized Si dangling-bond defects by tunneling spectroscopy. *Physical Review Letters*, **1988**, 60, 2527-2530	7.4	113
289	Titanium dioxide nanoparticles produce phototoxicity in the developing zebrafish. *Nanotoxicology*, **2012**, 6, 670-9	5.3	111
288	Functional monolayers for improved resistance to protein adsorption: oligo(ethylene glycol)-modified silicon and diamond surfaces. *Langmuir*, **2005**, 21, 6344-55	4	106
287	Geochemical and biological aspects of sulfide mineral dissolution: lessons from Iron Mountain, California. *Chemical Geology*, **2000**, 169, 383-397	4.2	105
286	An atomically resolved scanning tunneling microscopy study of the thermal decomposition of disilane on Si(001). *Surface Science*, **1994**, 311, 64-100	1.8	100
285	Malic Acid Carbon Dots: From Super-resolution Live-Cell Imaging to Highly Efficient Separation. *ACS Nano*, **2018**, 12, 5741-5752	16.7	98
284	Biological Responses to Engineered Nanomaterials: Needs for the Next Decade. *ACS Central Science*, **2015**, 1, 117-23	16.8	93
283	Kinetics, surface chemistry, and structural evolution of microbially mediated sulfide mineral dissolution. *Geochimica Et Cosmochimica Acta*, **2001**, 65, 1243-1258	5.5	92
282	UV-induced grafting of alkenes to silicon surfaces: photoemission versus excitons. *Journal of the American Chemical Society*, **2010**, 132, 4048-9	16.4	91
281	Cycloaddition Chemistry at Surfaces: Reaction of Alkenes with the Diamond(001)-2 Surface. *Journal of the American Chemical Society*, **2000**, 122, 732-733	16.4	91

280	Covalent photochemical functionalization of amorphous carbon thin films for integrated real-time biosensing. *Langmuir*, **2006**, 22, 9598-605	4	90
279	Quantum States and atomic structure of silicon surfaces. *Science*, **1986**, 234, 304-9	33.3	89
278	Covalent Functionalization for Biomolecular Recognition on Vertically Aligned Carbon Nanofibers. *Chemistry of Materials*, **2005**, 17, 4971-4978	9.6	87
277	Basal-Plane Ligand Functionalization on Semiconducting 2H-MoS Monolayers. *ACS Applied Materials & Interfaces*, **2017**, 9, 12734-12742	9.5	86
276	Atomic structure and bonding of boron-induced reconstructions on Si(001). *Physical Review Letters*, **1995**, 74, 403-406	7.4	86
275	Frequency-dependent electrical detection of protein binding events. *Analyst, The*, **2004**, 129, 3-8	5	85
274	Molecular and biomolecular monolayers on diamond as an interface to biology. *Diamond and Related Materials*, **2005**, 14, 661-668	3.5	84
273	Fabrication and characterization of a biologically sensitive field-effect transistor using a nanocrystalline diamond thin film. *Applied Physics Letters*, **2004**, 85, 3626-3628	3.4	84
272	Interaction of Conjugated Organic Molecules with Bonded Semiconductor Surfaces: Structure, Selectivity, and Mechanistic Implications. *Journal of the American Chemical Society*, **2000**, 122, 8529-8538	16.4	84
271	Preparation of clean and atomically flat germanium(001) surfaces. *Surface Science*, **1999**, 440, L815-L819	1.8	84
270	Atomic Layer Deposited MgO: A Lower Overpotential Coating for Li[NiMnCo]O Cathode. *ACS Applied Materials & Interfaces*, **2017**, 9, 11231-11239	9.5	82
269	Investigation of phosphorous doping effects on polymeric carbon dots: Fluorescence, photostability, and environmental impact. *Carbon*, **2018**, 129, 438-449	10.4	81
268	Microbial oxidation of pyrite; experiments using microorganisms from an extreme acidic environment. *American Mineralogist*, **1998**, 83, 1444-1453	2.9	81
267	Defect chemistry in CaF2:Eu3+ . *Journal of Chemical Physics*, **1982**, 77, 683-692	3.9	81
266	Designing Efficient Solar-Driven Hydrogen Evolution Photocathodes Using Semitransparent MoQxCly (Q = S, Se) Catalysts on Si Micropyramids. *Advanced Materials*, **2015**, 27, 6511-8	24	80
265	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, 983-8	11.5	80
264	Transient 2D IR spectroscopy of charge injection in dye-sensitized nanocrystalline thin films. *Journal of the American Chemical Society*, **2009**, 131, 18040-1	16.4	80
263	Atomic-resolution study of overlayer formation and interfacial mixing in the interaction of phosphorus with Si(001). *Physical Review B*, **1994**, 50, 4534-4547	3.3	78

262	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, 17163-79	16.4	77
261	Grafting of poly(3-hexylthiophene) brushes on oxides using click chemistry. *Journal of Materials Chemistry*, **2010**, 20, 2651-2658		76
260	Copper Based Nanomaterials Suppress Root Fungal Disease in Watermelon (Citrullus lanatus): Role of Particle Morphology, Composition and Dissolution Behavior. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 14847-14856	8.3	75
259	TiO2 nanoparticle exposure and illumination during zebrafish development: mortality at parts per billion concentrations. *Environmental Science & Technology*, **2013**, 47, 4726-33	10.3	73
258	Selective photoelectrochemical reduction of aqueous CO2 to CO by solvated electrons. *Angewandte Chemie - International Edition*, **2014**, 53, 9746-50	16.4	72
257	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		72
256	Photochemical functionalization of gallium nitride thin films with molecular and biomolecular layers. *Langmuir*, **2006**, 22, 8121-6	4	72
255	Functionalized Vertically Aligned Carbon Nanofibers as Scaffolds for Immobilization and Electrochemical Detection of Redox-Active Proteins. *Chemistry of Materials*, **2006**, 18, 4415-4422	9.6	71
254	Adsorption and Dissociation of Phosphine on Si(001). *The Journal of Physical Chemistry*, **1996**, 100, 4961-4969		70
253	Chemical Modification and Patterning of Iodine-Terminated Silicon Surfaces Using Visible Light. *Journal of Physical Chemistry B*, **2002**, 106, 2656-2664	3.4	70
252	Direct Probes of 4 nm Diameter Gold Nanoparticles Interacting with Supported Lipid Bilayers. *Journal of Physical Chemistry C*, **2015**, 119, 534-546	3.8	68
251	Photochemical grafting of n-alkenes onto carbon surfaces: the role of photoelectron ejection. *Journal of the American Chemical Society*, **2007**, 129, 13554-65	16.4	68
250	Electrically Addressable Biomolecular Functionalization of Conductive Nanocrystalline Diamond Thin Films. *Chemistry of Materials*, **2005**, 17, 938-940	9.6	68
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248	A scanning tunneling microscope for surface science studies. *IBM Journal of Research and Development*, **1986**, 30, 396-402	2.5	68
247	Kinetics and mechanism of polythionate oxidation to sulfate at low pH by O2 and Fe3+. *Geochimica Et Cosmochimica Acta*, **2003**, 67, 4457-4469	5.5	67
246	Covalent functionalization and biomolecular recognition properties of DNA-modified silicon nanowires. *Nanotechnology*, **2005**, 16, 1868-1873	3.4	67
245	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	5.1	66

244	Phase separation on an atomic scale: The formation of a novel quasiperiodic 2D structure. *Physical Review Letters*, **1989**, 62, 641-644	7.4	66
243	Quantitative determination of ligand densities on nanomaterials by X-ray photoelectron spectroscopy. *ACS Applied Materials & Interfaces*, **2015**, 7, 1720-5	9.5	65
242	Interfacial Chemistry of Pentacene on Clean and Chemically Modified Silicon (001) Surfaces. *Journal of Physical Chemistry B*, **2003**, 107, 11142-11148	3.4	63
241	Direct Chemical Vapor Deposition Synthesis of Phase-Pure Iron Pyrite (FeS2) Thin Films. *Chemistry of Materials*, **2015**, 27, 3108-3114	9.6	62
240	A new look at microbial leaching patterns on sulfide minerals. *FEMS Microbiology Ecology*, **2001**, 34, 197-206	4.9	62
239	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		61
238	Adsorption of Phenyl Isothiocyanate on Si(001): A 1,2-Dipolar Surface Addition Reaction. *Journal of Physical Chemistry B*, **1999**, 103, 6243-6251	3.4	61
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236	A citric acid-derived ligand for modular functionalization of metal oxide surfaces via "click" chemistry. *Langmuir*, **2012**, 28, 1322-9	4	60
235	Electrical properties of diamond surfaces functionalized with molecular monolayers. *Journal of Physical Chemistry B*, **2005**, 109, 8523-32	3.4	59
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233	Fluoride-modulated cobalt catalysts for electrochemical oxidation of water under non-alkaline conditions. *ChemSusChem*, **2010**, 3, 1176-9	8.3	56
232	Adsorption and dissociation of disilane on Si(001) studied by STM. *Surface Science*, **1993**, 298, 50-62	1.8	56
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229	Carbon-on-metal films for surface plasmon resonance detection of DNA arrays. *Journal of the American Chemical Society*, **2008**, 130, 8611-3	16.4	54
228	Chemical mapping of elemental sulfur on pyrite and arsenopyrite surfaces using near-infrared Raman imaging microscopy. *Applied Surface Science*, **2001**, 178, 105-115	6.7	54
227	Scanning Tunneling Microscopy of Organic Molecules and Monolayers on Silicon and Germanium (001) Surfaces. *Japanese Journal of Applied Physics*, **1999**, 38, 3879-3887	1.4	54

226	Direct electrical detection of antigen-antibody binding on diamond and silicon substrates using electrical impedance spectroscopy. *Analyst, The*, **2007**, 132, 296-306	5	53
225	Fabrication and characterization of vertically aligned carbon nanofiber electrodes for biosensing applications. *Diamond and Related Materials*, **2006**, 15, 433-439	3.5	53
224	Extraction and Quantitative Analysis of Elemental Sulfur from Sulfide Mineral Surfaces by High-Performance Liquid Chromatography. *Environmental Science & Technology*, **2000**, 34, 4651-4655	10.3	53
223	An Atomically Resolved STM Study of the Interaction of Phosphine with the Silicon(001) Surface. *The Journal of Physical Chemistry*, **1994**, 98, 5966-5973		53
222	Conformational disorder enhances electron transfer through alkyl monolayers: ferrocene on conductive diamond. *Journal of the American Chemical Society*, **2013**, 135, 5751-61	16.4	52
221	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	2.9	52
220	Using citrate-functionalized TiO2 nanoparticles to study the effect of particle size on zebrafish embryo toxicity. *Analyst, The*, **2014**, 139, 964-72	5	51
219	Engineered nanomaterial transformation under oxidative environmental conditions: development of an in vitro biomimetic assay. *Environmental Science & Technology*, **2009**, 43, 1598-604	10.3	51
218	Invasive cleavage reactions on DNA-modified diamond surfaces. *Biopolymers*, **2004**, 73, 606-13	2.2	50
217	Discovery and Elucidation of Counteranion Dependence in Photoredox Catalysis. *Journal of the American Chemical Society*, **2019**, 141, 6385-6391	16.4	49
216	Crystallographic Facet Dependence of the Hydrogen Evolution Reaction on CoPS: Theory and Experiments. *ACS Catalysis*, **2018**, 8, 1143-1152	13.1	49
215	Impact of Nanoscale Lithium Nickel Manganese Cobalt Oxide (NMC) on the BacteriumShewanella oneidensisMR-1. *Chemistry of Materials*, **2016**, 28, 1092-1100	9.6	49
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210	The role of Pi-conjugation in attachment of organic molecules to the silicon (001) surface. *Surface Science*, **2002**, 515, 75-86	1.8	48
209	Ab Initio Modeling of Electrolyte Molecule Ethylene Carbonate Decomposition Reaction on Li(Ni,Mn,Co)O Cathode Surface. *ACS Applied Materials & Interfaces*, **2017**, 9, 20545-20553	9.5	47

208	Surface chemistry for stable and smart molecular and biomolecular interfaces via photochemical grafting of alkenes. *Accounts of Chemical Research*, **2010**, 43, 1205-15	24.3	47
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202	Nanoscale solid-state quantum computing. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2003**, 361, 1473-85	3	46
201	Mechanism of N2 reduction to NH3 by aqueous solvated electrons. *Journal of Physical Chemistry B*, **2014**, 118, 195-203	3.4	45
200	Atomic Layer Deposition of Al2O3-Ga2O3 Alloy Coatings for Li[Ni0.5Mn0.3Co0.2]O2 Cathode to Improve Rate Performance in Li-Ion Battery. *ACS Applied Materials & Interfaces*, **2016**, 8, 10572-80	9.5	45
199	Natural Organic Matter Concentration Impacts the Interaction of Functionalized Diamond Nanoparticles with Model and Actual Bacterial Membranes. *Environmental Science & Technology*, **2017**, 51, 11075-11084	10.3	44
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197	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	16.4	44
196	Formation of π-conjugated molecular arrays on silicon (0 0 1) surfaces by heteroatomic Diels–Alder chemistry. *Surface Science*, **2002**, 514, 362-375	1.8	43
195	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	2.9	43
194	A quantitative study of detection mechanism of a label-free impedance biosensor using ultrananocrystalline diamond microelectrode array. *Biosensors and Bioelectronics*, **2012**, 35, 284-290	11.8	42
193	Covalent Functionalization and Electron-Transfer Properties of Vertically Aligned Carbon Nanofibers: The Importance of Edge-Plane Sites. *Chemistry of Materials*, **2010**, 22, 2357-2366	9.6	42
192	Advanced material modulation of nutritional and phytohormone status alleviates damage from soybean sudden death syndrome. *Nature Nanotechnology*, **2020**, 15, 1033-1042	28.7	42
191	Anode-originated SEI migration contributes to formation of cathode-electrolyte interphase layer. *Journal of Power Sources*, **2018**, 373, 184-192	8.9	42

190	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	16.7	41
189	Time-Dependent Transcriptional Response of Tomato (Solanum lycopersicum L.) to Cu Nanoparticle Exposure upon Infection with Fusarium oxysporum f. sp. lycopersici. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 10064-10074	8.3	41
188	Functional Self-Assembled Monolayers for Optimized Photoinduced Charge Transfer in Organic Field Effect Transistors. *Advanced Materials*, **2007**, 19, 4353-4357	24	41
187	Surface functionalization and biological applications of CVD diamond. *MRS Bulletin*, **2014**, 39, 517-524	3.2	40
186	Bridge-Dependent Interfacial Electron Transfer from RheniumBipyridine Complexes to TiO2 Nanocrystalline Thin Films. *Journal of Physical Chemistry C*, **2010**, 114, 9898-9907	3.8	40
185	Boron-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	2.9	40
184	Dimer strings, anisotropic growth, and persistent layer-by-layer epitaxy. *Physical Review B*, **1989**, 40, 11951-11954	3.3	40
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181	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	3.8	38
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