

# Ralph G Nuzzo

## List of Publications by Year in descending order

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314  
papers

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321  
docs citations

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times ranked

42158  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-Assembled Monolayers of Thiolates on Metals as a Form of Nanotechnology. <i>Chemical Reviews</i> , 2005, 105, 1103-1170.	47.7	7,419
2	Formation of monolayer films by the spontaneous assembly of organic thiols from solution onto gold. <i>Journal of the American Chemical Society</i> , 1989, 111, 321-335.	13.7	3,344
3	Biomimetic 4D printing. <i>Nature Materials</i> , 2016, 15, 413-418.	27.5	2,268
4	Nanostructured Plasmonic Sensors. <i>Chemical Reviews</i> , 2008, 108, 494-521.	47.7	2,245
5	Comparison of the structures and wetting properties of self-assembled monolayers of n-alkanethiols on the coinage metal surfaces, copper, silver, and gold. <i>Journal of the American Chemical Society</i> , 1991, 113, 7152-7167.	13.7	1,895
6	Synthesis, Structure, and Properties of Model Organic Surfaces. <i>Annual Review of Physical Chemistry</i> , 1992, 43, 437-463.	10.8	1,705
7	Fundamental studies of microscopic wetting on organic surfaces. 1. Formation and structural characterization of a self-consistent series of polyfunctional organic monolayers. <i>Journal of the American Chemical Society</i> , 1990, 112, 558-569.	13.7	1,519
8	Transfer printing by kinetic control of adhesion to an elastomeric stamp. <i>Nature Materials</i> , 2006, 5, 33-38.	27.5	1,348
9	Omnidirectional Printing of Flexible, Stretchable, and Spanning Silver Microelectrodes. <i>Science</i> , 2009, 323, 1590-1593.	12.6	1,072
10	Fundamental studies of the chemisorption of organosulfur compounds on gold(111). Implications for molecular self-assembly on gold surfaces. <i>Journal of the American Chemical Society</i> , 1987, 109, 733-740.	13.7	925
11	Assembly of micro/nanomaterials into complex, three-dimensional architectures by compressive buckling. <i>Science</i> , 2015, 347, 154-159.	12.6	745
12	Transfer Printing Techniques for Materials Assembly and Micro/Nanodevice Fabrication. <i>Advanced Materials</i> , 2012, 24, 5284-5318.	21.0	727
13	Spontaneously organized molecular assemblies. 3. Preparation and properties of solution adsorbed monolayers of organic disulfides on gold surfaces. <i>Journal of the American Chemical Society</i> , 1987, 109, 2358-2368.	13.7	695
14	Spontaneously organized molecular assemblies. 1. Formation, dynamics, and physical properties of n-alkanoic acids adsorbed from solution on an oxidized aluminum surface. <i>Langmuir</i> , 1985, 1, 45-52.	3.5	634
15	Heterogeneous Three-Dimensional Electronics by Use of Printed Semiconductor Nanomaterials. <i>Science</i> , 2006, 314, 1754-1757.	12.6	632
16	Synthesis, assembly and applications of semiconductor nanomembranes. <i>Nature</i> , 2011, 477, 45-53.	27.8	615
17	A View from the Inside: Complexity in the Atomic Scale Ordering of Supported Metal Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2001, 105, 12689-12703.	2.6	601
18	Monolayer films prepared by the spontaneous self-assembly of symmetrical and unsymmetrical dialkyl sulfides from solution onto gold substrates: structure, properties, and reactivity of constituent functional groups. <i>Langmuir</i> , 1988, 4, 365-385.	3.5	570

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19	Waterproof AlInGaP optoelectronics on stretchable substrates with applications in biomedicine and Robotics. Nature Materials, 2010, 9, 929-937.	27.5	557
20	Conformal Printing of Electrically Small Antennas on Three-Dimensional Surfaces. Advanced Materials, 2011, 23, 1335-1340.	21.0	499
21	Molecular ordering of organosulfur compounds on Au(111) and Au(100): Adsorption from solution and in ultrahigh vacuum. Journal of Chemical Physics, 1993, 98, 678-688.	3.0	429
22	Studies of the temperature-dependent phase behavior of long chain n-alkyl thiol monolayers on gold. Journal of Chemical Physics, 1990, 93, 767-773.	3.0	351
23	A printable form of silicon for high performance thin film transistors on plastic substrates. Applied Physics Letters, 2004, 84, 5398-5400.	3.3	340
24	Coordination-dependent surface atomic contraction in nanocrystals revealed by coherent diffraction. Nature Materials, 2008, 7, 308-313.	27.5	331
25	Self-Assembled Monolayers of Long-Chain Hydroxamic Acids on the Native Oxide of Metals. Langmuir, 1995, 11, 813-824.	3.5	325
26	Near-IR Luminescence of Monolayer-Protected Metal Clusters. Journal of the American Chemical Society, 2005, 127, 812-813.	13.7	322
27	Quantitative multispectral biosensing and 1D imaging using quasi-3D plasmonic crystals. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17143-17148.	7.1	321
28	Structural Characterization of Carbon-Supported Platinum-Ruthenium Nanoparticles from the Molecular Cluster Precursor PtRu <sub>5</sub> C(CO) <sub>16</sub> . Journal of the American Chemical Society, 1997, 119, 7760-7771.	13.7	310
29	Formation and Structure of Self-Assembled Monolayers of Alkanethiolates on Palladium. Journal of the American Chemical Society, 2003, 125, 2597-2609.	13.7	306
30	Competing Fracture in Kinetically Controlled Transfer Printing. Langmuir, 2007, 23, 12555-12560.	3.5	301
31	Direct-Write Assembly of 3D Hydrogel Scaffolds for Guided Cell Growth. Advanced Materials, 2009, 21, 2407-2410.	21.0	266
32	Fundamental studies of microscopic wetting on organic surfaces. 2. Interaction of secondary adsorbates with chemically textured organic monolayers. Journal of the American Chemical Society, 1990, 112, 570-579.	13.7	251
33	Unusual strategies for using indium gallium nitride grown on silicon (111) for solid-state lighting. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10072-10077.	7.1	228
34	Core Shell Inversion during Nucleation and Growth of Bimetallic Pt/Ru Nanoparticles. Journal of the American Chemical Society, 1998, 120, 8093-8101.	13.7	215
35	Structure and Stability of Patterned Self-Assembled Films of Octadecyltrichlorosilane Formed by Contact Printing. Langmuir, 1997, 13, 3382-3391.	3.5	208
36	3D Microperiodic Hydrogel Scaffolds for Robust Neuronal Cultures. Advanced Functional Materials, 2011, 21, 47-54.	14.9	205

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37	Two- and three-dimensional folding of thin film single-crystalline silicon for photovoltaic power applications. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20149-20154.	7.1	198
38	Bendable single crystal silicon thin film transistors formed by printing on plastic substrates. Applied Physics Letters, 2005, 86, 093507.	3.3	195
39	Surface organometallic chemistry in the chemical vapor deposition of aluminum films using triisobutylaluminum: $\beta$ -hydride and $\beta$ -alkyl elimination reactions of surface alkyl intermediates. Journal of the American Chemical Society, 1989, 111, 1634-1644.	13.7	185
40	Microfluidic devices for culturing primary mammalian neurons at low densities. Lab on A Chip, 2007, 7, 987.	6.0	179
41	Self-Assembled Monolayers on Gold Generated from Alkanethiols with the Structure $\text{RNHCOCH}_2\text{SH}$ . Langmuir, 1995, 11, 4371-4382.	3.5	177
42	Strain Anisotropies and Self-Limiting Capacities in Single-Crystalline 3D Silicon Microstructures: Models for High Energy Density Lithium-Ion Battery Anodes. Advanced Functional Materials, 2011, 21, 2412-2422.	14.9	176
43	Electronically Programmable, Reversible Shape Change in Two- and Three-Dimensional Hydrogel Structures. Advanced Materials, 2013, 25, 1541-1546.	21.0	169
44	Electrolytic Conditioning of a Magnesium Aluminum Chloride Complex for Reversible Magnesium Deposition. Journal of Physical Chemistry C, 2014, 118, 27623-27630.	3.1	167
45	Carbon Support Effects on Bimetallic $\text{Pt}^{\sim}\text{Ru}$ Nanoparticles Formed from Molecular Precursors. Langmuir, 1999, 15, 690-700.	3.5	166
46	Decal Transfer Microlithography: A New Soft-Lithographic Patterning Method. Journal of the American Chemical Society, 2002, 124, 13583-13596.	13.7	159
47	Bendable GaN high electron mobility transistors on plastic substrates. Journal of Applied Physics, 2006, 100, 124507.	2.5	157
48	Luminescent Solar Concentration with Semiconductor Nanorods and Transfer-Printed Micro-Silicon Solar Cells. ACS Nano, 2014, 8, 44-53.	14.6	153
49	Patterned polymer growth on silicon surfaces using microcontact printing and surface-initiated polymerization. Applied Physics Letters, 1999, 75, 4201-4203.	3.3	152
50	Macromolecules at surfaces: Research challenges and opportunities from tribology to biology. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 2755-2793.	2.1	151
51	Spin on dopants for high-performance single-crystal silicon transistors on flexible plastic substrates. Applied Physics Letters, 2005, 86, 133507.	3.3	145
52	The Emergence of Nonbulk Properties in Supported Metal Clusters: Negative Thermal Expansion and Atomic Disorder in Pt Nanoclusters Supported on $\text{Al}_2\text{O}_3$ . Journal of the American Chemical Society, 2009, 131, 7040-7054.	13.7	145
53	Guiding neuron development with planar surface gradients of substrate cues deposited using microfluidic devices. Lab on A Chip, 2010, 10, 1525.	6.0	144
54	Printing-based assembly of quadruple-junction four-terminal microscale solar cells and their use in high-efficiency modules. Nature Materials, 2014, 13, 593-598.	27.5	143

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55	Surface-Initiated Ring-Opening Metathesis Polymerization on Si/SiO <sub>2</sub> . <i>Macromolecules</i> , 2000, 33, 2793-2795.	4.8	141
56	Patterned self-assembled monolayers formed by microcontact printing direct selective metalization by chemical vapor deposition on planar and nonplanar substrates. <i>Langmuir</i> , 1995, 11, 3024-3026.	3.5	136
57	Adsorption of poly(2-vinylpyridine)-poly (styrene) block copolymers from toluene solutions. <i>Macromolecules</i> , 1991, 24, 1987-1995.	4.8	131
58	Unusual Non-Bulk Properties in Nanoscale Materials: A Thermal Metal-Metal Bond Contraction of $\gamma$ -Alumina-Supported Pt Catalysts. <i>Journal of the American Chemical Society</i> , 2006, 128, 12068-12069.	13.7	131
59	A Method for Filling Complex Polymeric Microfluidic Devices and Arrays. <i>Analytical Chemistry</i> , 2001, 73, 3193-3197.	6.5	130
60	Preparation of TiO <sub>2</sub> -supported Au nanoparticle catalysts from a Au <sub>13</sub> cluster precursor: Ligand removal using ozone exposure versus a rapid thermal treatment. <i>Journal of Catalysis</i> , 2006, 243, 64-73.	6.2	129
61	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E9455-E9464.	7.1	129
62	Large-Area, Selective Transfer of Microstructured Silicon: A Printing- Based Approach to High-Performance Thin-Film Transistors Supported on Flexible Substrates. <i>Advanced Materials</i> , 2005, 17, 2332-2336.	21.0	128
63	Quantum Dot Luminescent Concentrator Cavity Exhibiting 30-fold Concentration. <i>ACS Photonics</i> , 2015, 2, 1576-1583.	6.6	126
64	Self-assembled monolayers: Recent developments and applications. <i>Current Opinion in Colloid and Interface Science</i> , 1996, 1, 127-136.	7.4	120
65	Complex structural dynamics of nanocatalysts revealed in Operando conditions by correlated imaging and spectroscopy probes. <i>Nature Communications</i> , 2015, 6, 7583.	12.8	118
66	Evolution at the Solid Electrolyte/Gold Electrode Interface during Lithium Deposition and Stripping. <i>Chemistry of Materials</i> , 2017, 29, 3029-3037.	6.7	117
67	Synthesis of functional chelating diphosphines containing the bis[2-(diphenylphosphino)ethyl]amino moiety and the use of these materials in the preparation of water-soluble diphosphine complexes of transition metals. <i>Journal of Organic Chemistry</i> , 1981, 46, 2861-2867.	3.2	115
68	Reconstruction of the interface of oxidatively functionalized polyethylene and derivatives on heating. <i>Langmuir</i> , 1987, 3, 799-815.	3.5	110
69	A Printable Form of Single-Crystalline Gallium Nitride for Flexible Optoelectronic Systems. <i>Small</i> , 2005, 1, 1164-1168.	10.0	109
70	Functional Nanostructured Plasmonic Materials. <i>Advanced Materials</i> , 2010, 22, 1102-1110.	21.0	109
71	Photolithographic Route to the Fabrication of Micro/Nanowires of III-V Semiconductors. <i>Advanced Functional Materials</i> , 2005, 15, 30-40.	14.9	107
72	High performance plasmonic crystal sensor formed by soft nanoimprint lithography. <i>Optics Express</i> , 2005, 13, 5669.	3.4	107

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73	Sub-Nanometer Au Monolayer-Protected Clusters Exhibiting Molecule-like Electronic Behavior:Â Quantitative High-Angle Annular Dark-Field Scanning Transmission Electron Microscopy and Electrochemical Characterization of Clusters with Precise Atomic Stoichiometry. Journal of Physical Chemistry B, 2006, 110, 12874-12883.	2.6	107
74	Recent developments and applications of electron microscopy to heterogeneous catalysis. Chemical Society Reviews, 2012, 41, 8179.	38.1	107
75	ZnNi<i><sub><b>x</b></sub></i>Mn<i><sub><b>x</b></sub></i>Co<sub>2<sup>+</sup></sub><i><sub><b>x</b></sub></i>O<sub>4</sub>/su Spinel as a Highâ€Voltage and Highâ€Capacity Cathode Material for Nonaqueous Znâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1800589.	19.5	105
76	The Size-Dependent Structural Phase Behaviors of Supported Bimetallic (Ptâ~Ru) Nanoparticles. Journal of Physical Chemistry B, 2003, 107, 2626-2636.	2.6	104
77	Patterning of dielectric oxide thin layers by microcontact printing of self-assembled monolayers. Journal of Materials Research, 1995, 10, 2996-2999.	2.6	103
78	Structural Characterization of Ptâ~Pd and Pdâ~Pt Coreâ~Shell Nanoclusters at Atomic Resolution. Journal of the American Chemical Society, 2009, 131, 8683-8689.	13.7	103
79	Dynamic structure of active sites in ceria-supported Pt catalysts for the water gas shift reaction. Nature Communications, 2021, 12, 914.	12.8	103
80	Surface-selective deposition of palladium and silver films from metal-organic precursors: a novel metal-organic chemical vapor deposition redox transmetalation process. Journal of the American Chemical Society, 1993, 115, 11644-11645.	13.7	101
81	Preparation and characterization of functionalized polyethylene surfaces. Macromolecules, 1984, 17, 1013-1019.	4.8	100
82	Microfluidic Devices for Energy Conversion:Â Planar Integration and Performance of a Passive, Fully Immersed H2â~O2Fuel Cell. Langmuir, 2004, 20, 6974-6976.	3.5	91
83	Fabrication of Stable Metallic Patterns Embedded in Poly(dimethylsiloxane) and Model Applications in Non-Planar Electronic and Lab-on-a-Chip Device Patterning. Advanced Functional Materials, 2005, 15, 557-566.	14.9	91
84	3D Scaffolded Nickelâ€Tin Liâ€Ion Anodes with Enhanced Cyclability. Advanced Materials, 2016, 28, 742-747.	21.0	90
85	Catalytic Amplification of the Soft Lithographic Patterning of Si. Nonelectrochemical Orthogonal Fabrication of Photoluminescent Porous Si Pixel Arrays. Journal of the American Chemical Society, 2001, 123, 8709-8717.	13.7	88
86	Core-level photoemission measurements of valence-band offsets in highly strained heterojunctions: Si-Ge system. Physical Review B, 1989, 39, 1235-1241.	3.2	86
87	Complementary Logic Gates and Ring Oscillators on Plastic Substrates by Use of Printed Ribbons of Single-Crystalline Silicon. IEEE Electron Device Letters, 2008, 29, 73-76.	3.9	85
88	Mechanistic Studies of Palladium Thin Film Growth from Palladium(II) Î²-Diketonates. 1. Spectroscopic Studies of the Reactions of Bis(hexafluoroacetylacetonato)palladium(II) on Copper Surfaces. Journal of the American Chemical Society, 1996, 118, 5977-5987.	13.7	84
89	ZnAl<sub><i><sup>x</sup></i></sub>Co<sub>2<sup>+</sup></sub>O<sub>4</sub> Spinel as Cathode Materials for Non-Aqueous Zn Batteries with an Open Circuit Voltage of â‰‰2 V. Chemistry of Materials, 2017, 29, 9351-9359.	6.7	83
90	Metal Core Bonding Motifs of Monodisperse Icosahedral Au13and Larger Au Monolayer-Protected Clusters As Revealed by X-ray Absorption Spectroscopy and Transmission Electron Microscopy. Journal of Physical Chemistry B, 2006, 110, 14564-14573.	2.6	81

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91	In Situ Electrochemical X-ray Absorption Spectroscopy of Oxygen Reduction Electrocatalysis with High Oxygen Flux. <i>Journal of the American Chemical Society</i> , 2012, 134, 197-200.	13.7	79
92	Bendable integrated circuits on plastic substrates by use of printed ribbons of single-crystalline silicon. <i>Applied Physics Letters</i> , 2007, 90, 213501.	3.3	78
93	Dynamic structure in supported Pt nanoclusters: Real-time density functional theory and x-ray spectroscopy simulations. <i>Physical Review B</i> , 2008, 78, .	3.2	77
94	Textural guidance cues for controlling process outgrowth of mammalian neurons. <i>Lab on A Chip</i> , 2009, 9, 122-131.	6.0	76
95	Understanding the Effect of Interlayers at the Thiophosphate Solid Electrolyte/Lithium Interface for All-Solid-State Li Batteries. <i>Chemistry of Materials</i> , 2018, 30, 8747-8756.	6.7	75
96	Thermal decomposition of alkyl halides on aluminum. 1. Carbon-halogen bond cleavage and surface .beta.-hydride elimination reactions. <i>Journal of the American Chemical Society</i> , 1991, 113, 1137-1142.	13.7	74
97	Copper Deposition in the Presence of Surface-Confined Additives. <i>Journal of the Electrochemical Society</i> , 1997, 144, 96-105.	2.9	74
98	Fabrication of Patterned Multicomponent Protein Gradients and Gradient Arrays Using Microfluidic Depletion. <i>Analytical Chemistry</i> , 2003, 75, 5775-5782.	6.5	73
99	Spontaneous organization of carboxylic acid monolayer films in ultrahigh vacuum. Kinetic constraints to assembly via gas-phase adsorption. <i>Langmuir</i> , 1986, 2, 412-417.	3.5	72
100	Soft lithographic fabrication of an image sensor array on a curved substrate. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, 2548.	1.6	72
101	Noncrystalline-to-Crystalline Transformations in Pt Nanoparticles. <i>Journal of the American Chemical Society</i> , 2013, 135, 13062-13072.	13.7	71
102	Exploring Salt and Solvent Effects in Chloride-Based Electrolytes for Magnesium Electrodeposition and Dissolution. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13524-13534.	3.1	71
103	Mechanisms of thermal decomposition of diethylbis(triethylphosphine)platinum(II). <i>Journal of the American Chemical Society</i> , 1981, 103, 3396-3403.	13.7	70
104	Local Structure and Electronic State of Atomically Dispersed Pt Supported on Nanosized CeO <sub>2</sub> . <i>ACS Catalysis</i> , 2019, 9, 8738-8748.	11.2	70
105	Selective Chemical Vapor Deposition of Platinum and Palladium Directed by Monolayers Patterned Using Microcontact Printing. <i>Langmuir</i> , 1997, 13, 3833-3838.	3.5	69
106	Bis(2-diphenylphosphinoethyl)amine. A flexible synthesis of functionalized chelating diphosphines. <i>Journal of the American Chemical Society</i> , 1978, 100, 2269-2270.	13.7	67
107	The adsorption and thermal decomposition of trimethylamine alane on aluminum and silicon single crystal surfaces: kinetic and mechanistic studies. <i>Surface Science</i> , 1990, 236, 77-84.	1.9	66
108	Designing and transforming yield-stress fluids. <i>Current Opinion in Solid State and Materials Science</i> , 2019, 23, 100758.	11.5	66



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109	Masterless Soft Lithography: Patterning UV/Ozone-Induced Adhesion on Poly(dimethylsiloxane) Surfaces. Langmuir, 2005, 21, 10096-10105.	3.5	65
110	Compact monocrystalline silicon solar modules with high voltage outputs and mechanically flexible designs. Energy and Environmental Science, 2010, 3, 208.	30.8	65
111	X-ray photoemission core level determination of the GaSb/AlSb heterojunction valence band discontinuity. Applied Physics Letters, 1986, 49, 1037-1039.	3.3	64
112	Catalytic Amplification of Patterning via Surface-Confined Ring-Opening Metathesis Polymerization on Mixed Primer Layers Formed by Contact Printing. Langmuir, 2003, 19, 5104-5114.	3.5	64
113	Functional Protein Microarrays by Electrohydrodynamic Jet Printing. Analytical Chemistry, 2012, 84, 10012-10018.	6.5	64
114	Seeing Molecules by Eye: Surface Plasmon Resonance Imaging at Visible Wavelengths with High Spatial Resolution and Submonolayer Sensitivity. Angewandte Chemie - International Edition, 2008, 47, 5013-5017.	13.8	62
115	Mass spectrometric imaging of peptide release from neuronal cells within microfluidic devices. Lab on A Chip, 2007, 7, 1454.	6.0	61
116	Light Trapping in Ultrathin Monocrystalline Silicon Solar Cells. Advanced Energy Materials, 2013, 3, 1401-1406.	19.5	61
117	Water-soluble complexes of tertiary phosphines and rhodium(I) as homogeneous catalysts. Journal of the American Chemical Society, 1979, 101, 3683-3685.	13.7	60
118	Formation and Patterning of Self-Assembled Monolayers Derived from Long-Chain Organosilicon Amphiphiles and Their Use as Templates in Materials Microfabrication. Langmuir, 2000, 16, 6968-6976.	3.5	60
119	Toward a Four-Electron Redox Quinone Polymer for High Capacity Lithium Ion Storage. Advanced Energy Materials, 2018, 8, 1700960.	19.5	60
120	Enhanced Photon Collection in Luminescent Solar Concentrators with Distributed Bragg Reflectors. ACS Photonics, 2016, 3, 278-285.	6.6	58
121	Monolayer-Mediated Deposition of Tantalum(V) Oxide Thin Film Structures from Solution Precursors. Journal of the American Ceramic Society, 1997, 80, 2821-2827.	3.8	57
122	A passive microfluidic hydrogen-air fuel cell with exceptional stability and high performance. Lab on A Chip, 2006, 6, 353.	6.0	57
123	Fabrication of Silicon MOSFETs Using Soft Lithography. Advanced Materials, 1998, 10, 1466-1469.	21.0	56
124	High-concentration planar microtracking photovoltaic system exceeding 30% efficiency. Nature Energy, 2017, 2, .	39.5	56
125	Determination of the (100) InAs/GaSb heterojunction valence band discontinuity by x-ray photoemission core level spectroscopy. Journal of Applied Physics, 1987, 61, 5337-5341.	2.5	55
126	A Monolayer-Based Lift-Off Process for Patterning Chemical Vapor Deposition Copper Thin Films. Langmuir, 1996, 12, 5350-5355.	3.5	55



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127	Additive fabrication of integrated ferroelectric thin-film capacitors using self-assembled organic thin-film templates. <i>Advanced Materials</i> , 1997, 9, 891-895.	21.0	55
128	Origin of Bulklike Structure and Bond Length Disorder of Pt <sub>37</sub> and Pt <sub>6</sub> Ru <sub>31</sub> Clusters on Carbon: A Comparison of Theory and Experiment. <i>Journal of the American Chemical Society</i> , 2006, 128, 131-142.	13.7	55
129	Identifying Dynamic Structural Changes of Active Sites in Pt–Ni Bimetallic Catalysts Using Multimodal Approaches. <i>ACS Catalysis</i> , 2018, 8, 4120-4131.	11.2	54
130	Aluminum thin film growth by the thermal decomposition of triethylamine alane. <i>Surface Science</i> , 1991, 244, 89-95.	1.9	53
131	Influence of Adsorbates on the Electronic Structure, Bond Strain, and Thermal Properties of an Alumina-Supported Pt Catalyst. <i>ACS Nano</i> , 2012, 6, 5583-5595.	14.6	53
132	Bimetallic Catalyst Particle Nanostructure. Evolution from Molecular Cluster Precursors. <i>Journal of the American Chemical Society</i> , 1996, 118, 12964-12974.	13.7	52
133	Semipermeable, Chemisorbed Adlayers of Focally-Substituted Organothiol Dendrons on Gold. <i>Langmuir</i> , 1998, 14, 3312-3319.	3.5	52
134	UV patternable thin film chemistry for shape and functionally versatile self-oscillating gels. <i>Soft Matter</i> , 2013, 9, 1231-1243.	2.7	52
135	Assembly and Characterization of SAMs Formed by the Adsorption of Alkanethiols on Zinc Selenide Substrates. <i>Langmuir</i> , 2001, 17, 3937-3944.	3.5	51
136	Intrinsic reactivity of magnesium surfaces toward methyl bromide. <i>Journal of the American Chemical Society</i> , 1986, 108, 2881-2886.	13.7	50
137	Optical Transduction of Chemical Forces. <i>Nano Letters</i> , 2007, 7, 733-737.	9.1	50
138	Conjugated Carbon Monolayer Membranes: Methods for Synthesis and Integration. <i>Advanced Materials</i> , 2010, 22, 1072-1077.	21.0	50
139	Melting of Rodlike Molecules on Pt(111). Infrared Spectroscopic Studies of Isotopically Labeled n-Alkanes. <i>Journal of Physical Chemistry B</i> , 1998, 102, 8816-8824.	2.6	49
140	Single Atom Catalysts: A Review of Characterization Methods. <i>Chemistry Methods</i> , 2021, 1, 278-294.	3.8	49
141	Large-Area Patterning of Coinage-Metal Thin Films Using Decal Transfer Lithography. <i>Langmuir</i> , 2005, 21, 195-202.	3.5	48
142	Concentrator photovoltaic module architectures with capabilities for capture and conversion of full global solar radiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E8210-E8218.	7.1	48
143	Synthesis of a Novel Volatile Platinum Complex for Use in CVD and a Study of the Mechanism of Its Thermal Decomposition in Solution. <i>Journal of the American Chemical Society</i> , 1996, 118, 2634-2643.	13.7	47
144	Triangular Elastomeric Stamps for Optical Applications: Near-Field Phase Shift Photolithography, 3D Proximity Field Patterning, Embossed Antireflective Coatings, and SERS Sensing. <i>Advanced Functional Materials</i> , 2012, 22, 2927-2938.	14.9	47

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145	An <i>in Situ</i> Study of Bond Strains in 1 nm Pt Catalysts and Their Sensitivities to Cluster-Support and Cluster-Adsorbate Interactions. <i>Journal of Physical Chemistry C</i> , 2013, 117, 23286-23294.	3.1	47
146	Doubling the Power Output of Bifacial Thin-Film GaAs Solar Cells by Embedding Them in Luminescent Waveguides. <i>Advanced Energy Materials</i> , 2013, 3, 991-996.	19.5	47
147	Molecular Recognition at Model Organic Interfaces: Electrochemical Discrimination Using Self-Assembled Monolayers (SAMs) Modified via the Fusion of Phospholipid Vesicles. <i>Langmuir</i> , 2003, 19, 9781-9791.	3.5	46
148	Comparative <i>in Operando</i> Studies in Heterogeneous Catalysis: Atomic and Electronic Structural Features in the Hydrogenation of Ethylene over Supported Pd and Pt Catalysts. <i>ACS Catalysis</i> , 2015, 5, 1539-1551.	11.2	46
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