

Roya Maboudian

List of Publications by Year in descending order

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253
papers

14,572
citations

18482
62
h-index

22832
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254
all docs

254
docs citations

254
times ranked

16870
citing authors

#	ARTICLE	IF	CITATIONS
1	A new chemresistive NO ₂ sensing material: Hafnium diboride. <i>Ceramics International</i> , 2022, 48, 6835-6841.	4.8	1
2	In-situ synthesized N-doped ZnO for enhanced CO ₂ sensing: Experiments and DFT calculations. <i>Sensors and Actuators B: Chemical</i> , 2022, 357, 131359.	7.8	15
3	The nanomechanical properties of non-crosslinked calcium aluminosilicate hydrate: The influences of tetrahedral Al and curing age. <i>Cement and Concrete Research</i> , 2022, 159, 106900.	11.0	10
4	2021: A Year Starting Full of Hope. <i>ACS Sensors</i> , 2021, 6, 1-2.	7.8	0
5	Mutanofactin promotes adhesion and biofilm formation of cariogenic <i>Streptococcus mutans</i> . <i>Nature Chemical Biology</i> , 2021, 17, 576-584.	8.0	28
6	Facile synthesis of ZnO-SnO ₂ hetero-structured nanowires for high-performance NO ₂ sensing application. <i>Sensors and Actuators B: Chemical</i> , 2021, 333, 129613.	7.8	65
7	(Invited) Microfabricated Chemical Sensors for Industrial, Health and Environmental Monitoring. <i>ECS Meeting Abstracts</i> , 2021, MA2021-01, 1588-1588.	0.0	0
8	Plastic deformation mechanism of calcium-silicate hydrates determined by deviatoric-stress Raman spectroscopy. <i>Cement and Concrete Research</i> , 2021, 146, 106476.	11.0	19
9	Pd Nanoclusters Confined in ZIF-8 Matrixes for Fluorescent Detection of Glucose and Cholesterol. <i>ACS Applied Nano Materials</i> , 2021, 4, 9132-9142.	5.0	30
10	Cobalt Oxide-Decorated Silicon Carbide Nano-Tree Array Electrode for Micro-Supercapacitor Application. <i>Materials</i> , 2021, 14, 4514.	2.9	7
11	Sequestration of solid carbon in concrete: A large-scale enabler of lower-carbon intensity hydrogen from natural gas. <i>MRS Bulletin</i> , 2021, 46, 680-686.	3.5	10
12	Well-connected ZnO nanoparticle network fabricated by in-situ annealing of ZIF-8 for enhanced sensitivity in gas sensing application. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130180.	7.8	12
13	Amine-functionalized metal-organic framework ZIF-8 toward colorimetric CO ₂ sensing in indoor air environment. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130313.	7.8	15
14	Synthesis and gas sensing properties of NiO/ZnO heterostructured nanowires. <i>Journal of Alloys and Compounds</i> , 2021, 877, 160189.	5.5	30
15	Silicate Bond Characteristics in Calcium-Silicate-Hydrates Determined by High Pressure Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 18335-18345.	3.1	19
16	Atomically ordered intermetallic PdZn coupled with Co nanoparticles as a highly dispersed dual catalyst chemically bonded to N-doped carbon for boosting oxygen reduction reaction performance. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21327-21338.	10.3	16
17	Reconstructing hydrophobic ZIF-8 crystal into hydrophilic hierarchically-porous nanoflowers as catalyst carrier for nonenzymatic glucose sensing. <i>Sensors and Actuators B: Chemical</i> , 2020, 313, 128031.	7.8	35
18	Remembering NJ. <i>ACS Sensors</i> , 2020, 5, 887-888.	7.8	0

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19	Improved Hydrogen Sensitivity and Selectivity in PdO with Metal-Organic Framework Membrane. Journal of the Electrochemical Society, 2020, 167, 147503.	2.9	5
20	<i>In situ</i> formation of metal-organic framework derived CuO polyhedrons on carbon cloth for highly sensitive non-enzymatic glucose sensing. Journal of Materials Chemistry B, 2019, 7, 4990-4996.	5.8	44
21	Transistor-Based Work-Function Measurement of Metal-Organic Frameworks for Ultra-Low-Power, Rationally Designed Chemical Sensors. Chemistry - A European Journal, 2019, 25, 13176-13183.	3.3	18
22	Hierarchical Co ₃ O ₄ /CuO nanorod array supported on carbon cloth for highly sensitive non-enzymatic glucose biosensing. Sensors and Actuators B: Chemical, 2019, 298, 126860.	7.8	89
23	W/TaC/SiC sandwich stack for high temperature applications. Ceramics International, 2019, 45, 22292-22297.	4.8	5
24	Scalable Ultra Low-Power Chemical Sensing with Metal-Organic Frameworks. , 2019, , .		0
25	Plasma assisted formation of 3D highly porous nanostructured metal oxide network on microheater platform for Low power gas sensing. Sensors and Actuators B: Chemical, 2019, 301, 127067.	7.8	25
26	TiN diffusion barrier for stable W/SiC(0001) interfaces in inert ambient at high temperature. Thin Solid Films, 2019, 670, 54-59.	1.8	11
27	Casting Nanoporous Platinum in Metal-Organic Frameworks. Advanced Materials, 2019, 31, e1807553.	21.0	13
28	Surface functionalization of carbon cloth with cobalt-porphyrin-based metal organic framework for enhanced electrochemical sensing. Carbon, 2019, 148, 64-71.	10.3	31
29	Synthesis and Electrochemical Stability of Ultrahigh Aspect Ratio Nanoporous Gold after Calixarene-Phosphine Ligand Removal. ACS Applied Materials & Interfaces, 2019, 11, 15189-15194.	8.0	0
30	Enhanced thermal stability by introducing TiN diffusion barrier layer between W and SiC. Journal of the American Ceramic Society, 2019, 102, 5613-5619.	3.8	3
31	The chemistry and structure of calcium (alumino) silicate hydrate: A study by XANES, ptychographic imaging, and wide- and small-angle scattering. Cement and Concrete Research, 2019, 115, 367-378.	11.0	104
32	Scalable Super-Resolution Synthesis of Core-Vest Composites Assisted by Surface Plasmons. Journal of Physical Chemistry Letters, 2018, 9, 717-723.	4.6	0
33	Hierarchical cobalt oxide-functionalized silicon carbide nanowire array for efficient and robust oxygen evolution electro-catalysis. Materials Today Energy, 2018, 7, 37-43.	4.7	12
34	Effects of ambient humidity and temperature on the NO ₂ sensing characteristics of WS ₂ /graphene aerogel. Applied Surface Science, 2018, 450, 372-379.	6.1	96
35	Atomic-Scale Electronic Characterization of Defects in Silicon Carbide Nanowires by Electron Energy-Loss Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 12047-12051.	3.1	6
36	Boron Doping and Defect Engineering of Graphene Aerogels for Ultrasensitive NO ₂ Detection. Journal of Physical Chemistry C, 2018, 122, 20358-20365.	3.1	41

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37	High Speed Epitaxial Perovskite Memory on Flexible Substrates. <i>Advanced Materials</i> , 2017, 29, 1605699.	21.0	74
38	In Situ Localized Growth of Ordered Metal Oxide Hollow Sphere Array on Microheater Platform for Sensitive, Ultra-Fast Gas Sensing. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 2634-2641.	8.0	81
39	Aluminum-induced dreierketten chain cross-links increase the mechanical properties of nanocrystalline calcium aluminosilicate hydrate. <i>Scientific Reports</i> , 2017, 7, 44032.	3.3	122
40	Low-power catalytic gas sensing using highly stable silicon carbide microheaters. <i>Journal of Micromechanics and Microengineering</i> , 2017, 27, 045003.	2.6	16
41	MnO _x -decorated carbonized porous silicon nanowire electrodes for high performance supercapacitors. <i>Energy and Environmental Science</i> , 2017, 10, 1505-1516.	30.8	109
42	Frictional characteristics of stiff, high aspect ratio microfiber arrays based on cyclic olefin polymers. <i>Journal of Adhesion Science and Technology</i> , 2017, 31, 1017-1027.	2.6	4
43	Direct Organization of Morphology-Controllable Mesoporous SnO ₂ Using Amphiphilic Graft Copolymer for Gas-Sensing Applications. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 37246-37253.	8.0	24
44	Conductometric gas sensing behavior of WS ₂ aerogel. <i>FlatChem</i> , 2017, 5, 1-8.	5.6	36
45	3D MoS ₂ Aerogel for Ultrasensitive NO ₂ Detection and Its Tunable Sensing Behavior. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700217.	3.7	60
46	Effects of CO ₂ and temperature on the structure and chemistry of C ₆₀ (A _h)S ₆ H investigated by Raman spectroscopy. <i>RSC Advances</i> , 2017, 7, 48925-48933.	3.6	70
47	Platinum Nanoparticle Loading of Boron Nitride Aerogel and Its Use as a Novel Material for Low-Power Catalytic Gas Sensing. <i>Advanced Functional Materials</i> , 2016, 26, 433-439.	14.9	82
48	High Surface Area MoS ₂ /Graphene Hybrid Aerogel for Ultrasensitive NO ₂ Detection. <i>Advanced Functional Materials</i> , 2016, 26, 5158-5165.	14.9	357
49	3D Stretchable Arch Ribbon Array Fabricated via Grayscale Lithography. <i>Scientific Reports</i> , 2016, 6, 28552.	3.3	7
50	Gas Sensors: Platinum Nanoparticle Loading of Boron Nitride Aerogel and Its Use as a Novel Material for Low-Power Catalytic Gas Sensing (Adv. Funct. Mater. 3/2016). <i>Advanced Functional Materials</i> , 2016, 26, 314-314.	14.9	3
51	Nanowire-Assembled Hierarchical ZnCo ₂ O ₄ Microstructure Integrated with a Low-Power Microheater for Highly Sensitive Formaldehyde Detection. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 31764-31771.	8.0	69
52	Increased Optoelectronic Quality and Uniformity of Hydrogenated p-InP Thin Films. <i>Chemistry of Materials</i> , 2016, 28, 4602-4607.	6.7	12
53	General Thermal Texturization Process of MoS ₂ for Efficient Electrocatalytic Hydrogen Evolution Reaction. <i>Nano Letters</i> , 2016, 16, 4047-4053.	9.1	106
54	Air-Stable n-Doping of WSe ₂ by Anion Vacancy Formation with Mild Plasma Treatment. <i>ACS Nano</i> , 2016, 10, 6853-6860.	14.6	202

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55	Demonstration of Hexagonal Phase Silicon Carbide Nanowire Arrays with Vertical Alignment. Crystal Growth and Design, 2016, 16, 2887-2892.	3.0	7
56	In Situ Localized Growth of Porous Tin Oxide Films on Low Power Microheater Platform for Low Temperature CO Detection. ACS Sensors, 2016, 1, 339-343.	7.8	57
57	Comparative studies on electrochemical cycling behavior of two different silica-based ionogels. Journal of Power Sources, 2016, 301, 299-305.	7.8	25
58	High-Temperature All Solid-State Microsupercapacitors based on SiC Nanowire Electrode and YSZ Electrolyte. ACS Applied Materials & Interfaces, 2015, 7, 26658-26665.	8.0	52
59	Highly crystalline MoS ₂ thin films grown by pulsed laser deposition. Applied Physics Letters, 2015, 106, .	3.3	117
60	Tuning the Friction Characteristics of Gecko-Inspired Polydimethylsiloxane Micropillar Arrays by Embedding Fe ₃ O ₄ and SiO ₂ Particles. ACS Applied Materials & Interfaces, 2015, 7, 13232-13237.	8.0	14
61	Ni-induced graphitization for enhanced long-term stability of ohmic contact to polycrystalline 3C-SiC. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	2
62	Facile fabrication of flexible all solid-state micro-supercapacitor by direct laser writing of porous carbon in polyimide. Carbon, 2015, 83, 144-151.	10.3	229
63	Catalytic hydrogen sensing using microheated platinum nanoparticle-loaded graphene aerogel. Sensors and Actuators B: Chemical, 2015, 206, 399-406.	7.8	72
64	Microfabricated Thermally Isolated Low Work-Function Emitter. Journal of Microelectromechanical Systems, 2014, 23, 1182-1187.	2.5	83
65	Electropolishing of n-type 3C-polycrystalline silicon carbide. Electrochemistry Communications, 2014, 40, 17-19.	4.7	16
66	Highly flexible, all solid-state micro-supercapacitors from vertically aligned carbon nanotubes. Nanotechnology, 2014, 25, 055401.	2.6	191
67	Strong interlayer coupling in van der Waals heterostructures built from single-layer chalcogenides. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6198-6202.	7.1	970
68	Hole Selective MoO _x Contact for Silicon Solar Cells. Nano Letters, 2014, 14, 967-971.	9.1	476
69	Electrodeposition of High-Purity Indium Thin Films and Its Application to Indium Phosphide Solar Cells. Journal of the Electrochemical Society, 2014, 161, D794-D800.	2.9	16
70	Flexible micro-supercapacitors from photoresist-derived carbon electrodes on flexible substrates. , 2014, , .		7
71	Two-Fluid Wetting Behavior of a Hydrophobic Silicon Nanowire Array. Langmuir, 2014, 30, 13330-13337.	3.5	7
72	Templated 3D Ultrathin CVD Graphite Networks with Controllable Geometry: Synthesis and Application As Supercapacitor Electrodes. ACS Applied Materials & Interfaces, 2014, 6, 18413-18417.	8.0	24

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73	High-performance all solid-state micro-supercapacitor based on patterned photoresist-derived porous carbon electrodes and an ionogel electrolyte. <i>Journal of Materials Chemistry A</i> , 2014, 2, 7997-8002.	10.3	135
74	Selective Ultrathin Carbon Sheath on Porous Silicon Nanowires: Materials for Extremely High Energy Density Planar Micro-Supercapacitors. <i>Nano Letters</i> , 2014, 14, 1843-1847.	9.1	96
75	Graphene Synthesis on Electrodeposited Substrates and Its Integration in MEMS for Sensor Applications. <i>ECS Transactions</i> , 2014, 64, 181-188.	0.5	2
76	Tuning Micropillar Tapering for Optimal Friction Performance of Thermoplastic Gecko-Inspired Adhesive. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 6936-6943.	8.0	11
77	Flexible micro-supercapacitors with high energy density from simple transfer of photoresist-derived porous carbon electrodes. <i>Carbon</i> , 2014, 74, 163-169.	10.3	71
78	Cycling characteristics of high energy density, electrochemically activated porous-carbon supercapacitor electrodes in aqueous electrolytes. <i>Journal of Materials Chemistry A</i> , 2013, 1, 10518.	10.3	30
79	Silicon carbide nanowires as highly robust electrodes for micro-supercapacitors. <i>Journal of Power Sources</i> , 2013, 230, 298-302.	7.8	144
80	Solvent-induced formation of unidirectionally curved and tilted Si nanowires during metal-assisted chemical etching. <i>Journal of Materials Chemistry C</i> , 2013, 1, 220-224.	5.5	26
81	Photoresist-derived porous carbon for on-chip micro-supercapacitors. <i>Carbon</i> , 2013, 57, 395-400.	10.3	107
82	Nitrate amperometric sensor in neutral pH based on Pd nanoparticles on epoxy-copper electrodes. <i>Electrochimica Acta</i> , 2013, 103, 38-43.	5.2	11
83	Semiconductor nanowires directly grown on graphene “towards wafer scale transferable nanowire arrays with improved electrical contact. <i>Nanoscale</i> , 2013, 5, 4114.	5.6	41
84	Friction Characteristics of Polymeric Nanofiber Arrays against Substrates with Tailored Geometry. <i>Langmuir</i> , 2013, 29, 8395-8401.	3.5	9
85	Advances in silicon carbide science and technology at the micro- and nanoscales. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013, 31, .	2.1	127
86	Laterally Actuated Platinum-Coated Polysilicon NEM Relays. <i>Journal of Microelectromechanical Systems</i> , 2013, 22, 768-778.	2.5	34
87	Lubrication of polycrystalline silicon MEMS via a thin silicon carbide coating. <i>Sensors and Actuators A: Physical</i> , 2013, 193, 238-245.	4.1	12
88	A direct thin-film path towards low-cost large-area III-V photovoltaics. <i>Scientific Reports</i> , 2013, 3, 2275.	3.3	65
89	Charging and discharging behavior in dielectric-coated MEMS electrodes probed by Kelvin probe force microscopy. <i>Journal of Micromechanics and Microengineering</i> , 2012, 22, 065031.	2.6	7
90	Single crystal silicon nanopillars, nanoneedles and nanoblades with precise positioning for massively parallel nanoscale device integration. <i>Nanotechnology</i> , 2012, 23, 225303.	2.6	4

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91	Investigation of quaternary ammonium silane-coated sand filter for the removal of bacteria and viruses from drinking water. Journal of Applied Microbiology, 2012, 113, 1196-1207.	3.1	26
92	Gold-Coated Silver Dendrites as SERS Substrates with an Improved Lifetime. Langmuir, 2012, 28, 17846-17850.	3.5	47
93	Inline Measurement of Adhesion Force Using Electrostatic Actuation and Capacitive Readout. Journal of Microelectromechanical Systems, 2012, 21, 768-770.	2.5	9
94	Graphene decoration with metal nanoparticles: Towards easy integration for sensing applications. Nanoscale, 2012, 4, 438-440.	5.6	164
95	Role of Counter-substrate Surface Energy in Macroscale Friction of Nanofiber Arrays. Langmuir, 2012, 28, 2922-2927.	3.5	12
96	Raman Spectroscopy for Characterization of Semiconducting Nanowires. , 2012, , 477-506.		4
97	Characterization of Adhesion Force in MEMS at High Temperature Using Thermally Actuated Microstructures. Journal of Microelectromechanical Systems, 2012, 21, 541-548.	2.5	22
98	Silicon carbide nanowires as an electrode material for high temperature supercapacitors. , 2012, , .		7
99	A SiC metallization scheme using an ALD protective layer for harsh environment devices. , 2012, , .		2
100	Silicon carbide coated silicon nanowires as robust electrode material for aqueous micro-supercapacitor. Applied Physics Letters, 2012, 100, .	3.3	136
101	Microfabricated silicon carbide thermionic energy converter for solar electricity generation. , 2012, , .		17
102	Application of principal component analysis to a full profile correlative analysis of FTIR spectra. Surface and Interface Analysis, 2012, 44, 365-371.	1.8	11
103	Single-layer CVD-grown graphene decorated with metal nanoparticles as a promising biosensing platform. Biosensors and Bioelectronics, 2012, 33, 56-59.	10.1	57
104	Low-Temperature, Ion Beam-Assisted SiC Thin Films With Antireflective ZnO Nanorod Arrays for High-Temperature Photodetection. IEEE Electron Device Letters, 2011, 32, 1564-1566.	3.9	31
105	Epitaxial Graphene Growth on 3C-SiC(111)/AlN(0001)/Si(100). Electrochemical and Solid-State Letters, 2011, 14, K13.	2.2	20
106	Ultrasmooth Gold Thin Films by Self-Limiting Galvanic Displacement on Silicon. ACS Applied Materials & Interfaces, 2011, 3, 1581-1584.	8.0	35
107	A finite element technique for accurate determination of interfacial adhesion force in MEMS using electrostatic actuation. Journal of Micromechanics and Microengineering, 2011, 21, 115025.	2.6	12
108	Effect of Fiber Geometry on Macroscale Friction of Ordered Low-Density Polyethylene Nanofiber Arrays. Langmuir, 2011, 27, 11008-11016.	3.5	31

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109	Micellar block copolymer templated galvanic displacement for epitaxial nanowire device integration. Journal of Materials Chemistry, 2011, 21, 8807.	6.7	12
110	Strategies for controlling Si nanowire formation during Au-assisted electroless etching. Journal of Materials Chemistry, 2011, 21, 10359.	6.7	36
111	Morphological, Electrical, and Chemical Changes in Cyclically Contacting Polycrystalline Silicon Surfaces Coated with Perfluoroalkylsilane Self-Assembled Monolayer. Tribology Letters, 2011, 44, 13-17.	2.6	6
112	Nonenzymatic glucose sensing based on deposited palladium nanoparticles on epoxy-silver electrodes. Electrochimica Acta, 2011, 56, 5855-5859.	5.2	43
113	Corrosion mechanism and surface passivation strategies of polycrystalline silicon electrodes. Sensors and Actuators A: Physical, 2011, 166, 201-206.	4.1	8
114	Determination of substrate pinning in epitaxial and supported graphene layers via Raman scattering. Physical Review B, 2011, 83, .	3.2	21
115	Nanocrystalline SiC metal-semiconductor-metal photodetector with ZnO nanorod arrays for high-temperature applications. , 2011, , .		2
116	Graphitization of n-type polycrystalline silicon carbide for on-chip supercapacitor application. Applied Physics Letters, 2011, 99, .	3.3	41
117	Strain engineering of epitaxially transferred, ultrathin layers of III-V semiconductor on insulator. Applied Physics Letters, 2011, 98, 012111.	3.3	23
118	Surface Treatment and Planarization. MEMS Reference Shelf, 2011, , 925-1044.	0.6	0
119	Interfacial Adhesion between Rough Surfaces of Polycrystalline Silicon and Its Implications for M/NEMS Technology. , 2011, , 211-222.		0
120	Palladium nanostructures from galvanic displacement as hydrogen peroxide sensor. Sensors and Actuators B: Chemical, 2010, 147, 681-686.	7.8	39
121	Adhesion Characteristics of PDMS Surfaces During Repeated Pull-Off Force Measurements. Advanced Engineering Materials, 2010, 12, 398-404.	3.5	93
122	Enhanced Ohmic contact via graphitization of polycrystalline silicon carbide. Applied Physics Letters, 2010, 97, 262107.	3.3	21
123	Low-energy ion bombardment to tailor the interfacial and mechanical properties of polycrystalline 3C-silicon carbide. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 1259-1262.	2.1	5
124	Growth and characterization of nitrogen-doped polycrystalline 3C-SiC thin films for harsh environment MEMS applications. Journal of Micromechanics and Microengineering, 2010, 20, 035011.	2.6	32
125	Magnetic micromechanical structures based on CoNi electrodeposited alloys. Journal of Micromechanics and Microengineering, 2010, 20, 125017.	2.6	9
126	A Simple Soft Lithographic Nanopatterning of Gold on Gallium Arsenide via Galvanic Displacement. Journal of Nanoscience and Nanotechnology, 2010, 10, 5020-5026.	0.9	6

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127	Silver Dendrites from Galvanic Displacement on Commercial Aluminum Foil As an Effective SERS Substrate. <i>Journal of the American Chemical Society</i> , 2010, 132, 1476-1477.	13.7	230
128	Growth of Epitaxial 3C-SiC Films on Si(100) via Low Temperature SiC Buffer Layer. <i>Crystal Growth and Design</i> , 2010, 10, 36-39.	3.0	32
129	Single Nanowire Thermal Conductivity Measurements by Raman Thermography. <i>ACS Nano</i> , 2010, 4, 4908-4914.	14.6	107
130	Galvanic Deposition of Pt Clusters on Silicon: Effect of HF Concentration and Application as Catalyst for Silicon Nanowire Growth. <i>Langmuir</i> , 2010, 26, 432-437.	3.5	21
131	Metal-catalyzed crystallization of amorphous carbon to graphene. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	234
132	Growth of 3C-SiC Thin Film on AlN/Si(100) with Atomically Abrupt Interface via Tailored Precursor Feeding Procedure. <i>Electrochemical and Solid-State Letters</i> , 2010, 13, D53.	2.2	5
133	Branching induced faceting of Si nanotrees. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	12
134	Ex situ vapor phase boron doping of silicon nanowires using BBr ₃ . <i>Nanoscale</i> , 2010, 2, 1165.	5.6	9
135	Characterization of Encapsulated Micromechanical Resonators Sealed and Coated With Polycrystalline SiC. <i>Journal of Microelectromechanical Systems</i> , 2010, 19, 357-366.	2.5	19
136	Interfacial Adhesion between Rough Surfaces of Polycrystalline Silicon and Its Implications for M/NEMS Technology. <i>Journal of Adhesion Science and Technology</i> , 2010, 24, 2545-2556.	2.6	11
137	Infrared and Ultraviolet Spectra of Fullerenes: HREELS Studies and Implications for the Interstellar Medium. <i>Carbon Materials</i> , 2010, , 27-37.	1.2	0
138	Tunable in situ growth of porous cubic silicon carbide thin films via methyltrichlorosilane-based chemical vapor deposition. <i>Applied Physics Letters</i> , 2009, 95, 101901.	3.3	5
139	Real-Time Observation of Reactive Spreading of Gold on Silicon. <i>Physical Review Letters</i> , 2009, 103, 256102.	7.8	19
140	In situ studies of interfacial contact evolution via a two-axis deflecting cantilever microinstrument. <i>Applied Physics Letters</i> , 2009, 95, 131902.	3.3	9
141	Residual stress characterization of polycrystalline 3C-SiC films on Si(100) deposited from methylsilane. <i>Journal of Applied Physics</i> , 2009, 106, 013505.	2.5	27
142	Room-Temperature Wet Etching of Polycrystalline and Nanocrystalline Silicon Carbide Thin Films with HF and HNO ₃ . <i>Journal of the Electrochemical Society</i> , 2009, 156, D104.	2.9	9
143	Experimental Investigation of Silicon Surface Migration in Low Pressure Nonreducing Gas Environments. <i>Electrochemical and Solid-State Letters</i> , 2009, 12, H437.	2.2	12
144	Electrical and Mechanical Characterization of Doped and Annealed Polycrystalline 3C-SiC Thin Films. <i>Journal of the Electrochemical Society</i> , 2009, 156, D5.	2.9	8

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145	Copper deposition onto silicon by galvanic displacement: Effect of Cu complex formation in NH ₄ F solutions. <i>Electrochimica Acta</i> , 2009, 54, 3270-3277.	5.2	9
146	Resolving sub-nm steps with a low-voltage miniature scanning electron microscope. <i>Microelectronic Engineering</i> , 2009, 86, 1004-1008.	2.4	3
147	Gecko-Inspired Combined Lamellar and Nanofibrillar Array for Adhesion on Nonplanar Surface. <i>Langmuir</i> , 2009, 25, 12449-12453.	3.5	84
148	Temperature dependence of Raman spectra for individual silicon nanowires. <i>Physical Review B</i> , 2009, 80, .	3.2	58
149	Silver Nanodesert Rose as a Substrate for Surface-Enhanced Raman Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 2551-2555.	8.0	46
150	Silver Nanostructures on Silicon Based on Galvanic Displacement Process. <i>Journal of Physical Chemistry C</i> , 2009, 113, 16939-16944.	3.1	48
151	Polymer-Oligopeptide Composite Coating for Selective Detection of Explosives in Water. <i>Analytical Chemistry</i> , 2009, 81, 4192-4199.	6.5	77
152	Cathodic corrosion of polycrystalline silicon MEMS. <i>Sensors and Actuators A: Physical</i> , 2008, 145-146, 323-329.	4.1	17
153	Poly(ethylene glycol) Monolayer Formation and Stability on Gold and Silicon Nitride Substrates. <i>Langmuir</i> , 2008, 24, 10646-10653.	3.5	56
154	Covalent Attachment of Organic Monolayers to Silicon Carbide Surfaces. <i>Langmuir</i> , 2008, 24, 4007-4012.	3.5	104
155	Evidence of Structural Strain in Epitaxial Graphene Layers on 6H-SiC(0001). <i>Physical Review Letters</i> , 2008, 101, 156801.	7.8	274
156	Characterization of boron-doped micro- and nanocrystalline diamond films deposited by wafer-scale hot filament chemical vapor deposition for MEMS applications. <i>Diamond and Related Materials</i> , 2008, 17, 23-28.	3.9	40
157	The dependence of poly-crystalline SiC mid-infrared optical properties on deposition conditions. , 2008, , .		0
158	Growth of branching Si nanowires seeded by Au-Si surface migration. <i>Journal of Materials Chemistry</i> , 2008, 18, 5376.	6.7	54
159	Temperature-Induced Self-Pinning and Nanolayering of AuSi Eutectic Droplets. <i>Journal of the American Chemical Society</i> , 2008, 130, 2681-2685.	13.7	50
160	Copper Deposition onto Silicon by Galvanic Displacement: Effect of Silicon Dissolution Rate. <i>Journal of the Electrochemical Society</i> , 2008, 155, E70.	2.9	30
161	Dynamics of Copper Deposition onto Silicon by Galvanic Displacement. <i>Journal of the Electrochemical Society</i> , 2008, 155, D244.	2.9	14
162	Effects of Annealing on Residual Stress and Strain Gradient of Doped Polycrystalline SiC Thin Films. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, D35.	2.2	12

#	ARTICLE	IF	CITATIONS
163	Evolution in surface morphology of epitaxial graphene layers on SiC induced by controlled structural strain. Applied Physics Letters, 2008, 93, 191916.	3.3	20
164	Characterization of polycrystalline 3C-SiC films deposited from the precursors 1,3-disilabutane and dichlorosilane. Journal of Applied Physics, 2008, 103, 084907.	2.5	25
165	Al-2 % Si Induced Crystallization of Amorphous Silicon. Electrochemical and Solid-State Letters, 2007, 10, H337-H339.	2.2	1
166	Phonon Polariton Reflectance Spectra In a Silicon Carbide Membrane Hole Array. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
167	Extraordinary Transmission Through A Poly-SiC Membrane with Subwavelength Hole Arrays. , 2007, , .		3
168	Electrochemical Deposition of Copper onto Silicon. ECS Transactions, 2007, 6, 569-576.	0.5	1
169	Structure and Morphology of Annealed Gold Films Galvanically Displaced on the Si(111) Surface. Journal of Physical Chemistry C, 2007, 111, 7508-7513.	3.1	31
170	Suspended Mechanical Structures Based on Elastic Silicon Nanowire Arrays. Nano Letters, 2007, 7, 1100-1104.	9.1	58
171	Effect of Formation Temperature and Roughness on Surface Potential of Octadecyltrichlorosilane Self-Assembled Monolayer on Silicon Surfaces. Journal of Physical Chemistry A, 2007, 111, 12339-12343.	2.5	24
172	Towards friction and adhesion from high modulus microfiber arrays. Journal of Adhesion Science and Technology, 2007, 21, 1297-1315.	2.6	45
173	Formation of <111> fiber texture in β^2 -SiC films deposited on Si(100) substrates. Diamond and Related Materials, 2007, 16, 74-80.	3.9	44
174	Electrical, mechanical and metal contact properties of polycrystalline 3C-SiC films for MEMS in harsh environments. Surface and Coatings Technology, 2007, 201, 8893-8898.	4.8	40
175	Metallization and nanostructuring of semiconductor surfaces by galvanic displacement processes. Surface Science Reports, 2007, 62, 499-525.	7.2	159
176	Nickel and platinum ohmic contacts to polycrystalline 3C-silicon carbide. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 139, 235-239.	3.5	10
177	Template assisted deposition of Ag nanoparticle arrays for surface-enhanced Raman scattering applications. Sensors and Actuators B: Chemical, 2007, 125, 353-356.	7.8	39
178	Control of strain gradient in doped polycrystalline silicon carbide films through tailored doping. Journal of Micromechanics and Microengineering, 2006, 16, L1-L5.	2.6	13
179	Electrochemical Fabrication of Supported Ni Nanostructures Through Transferred Porous Anodic Alumina Mask. Electrochemical and Solid-State Letters, 2006, 9, D13.	2.2	17
180	Effect of Temperature on In-Use Stiction of Cantilever Beams Coated With Perfluorinated Alkylsiloxane Monolayers. Journal of Microelectromechanical Systems, 2006, 15, 737-744.	2.5	16

#	ARTICLE	IF	CITATIONS
181	Synthesis of High Density, Size-Controlled Si Nanowire Arrays via Porous Anodic Alumina Mask. Chemistry of Materials, 2006, 18, 988-991.	6.7	100
182	Thermal Behavior of Perfluoroalkylsiloxane Monolayers on the Oxidized Si(100) Surface. Langmuir, 2006, 22, 2726-2730.	3.5	35
183	Stress control of polycrystalline 3C-SiC films in a large-scale LPCVD reactor using 1,3-disilabutane and dichlorosilane as precursors. Journal of Micromechanics and Microengineering, 2006, 16, 2736-2739.	2.6	30
184	Layer-by-layer self-assembled conductive thin films for MEMS applications. Sensors and Actuators A: Physical, 2006, 126, 194-200.	4.1	8
185	Polycrystalline silicon carbide as a substrate material for reducing adhesion in MEMS. Tribology Letters, 2006, 21, 226-232.	2.6	15
186	Electrical Characterization of n-Type Polycrystalline 3C-Silicon Carbide Thin Films Deposited by 1,3-Disilabutane. Journal of the Electrochemical Society, 2006, 153, G548.	2.9	26
187	Single-Source Chemical Vapor Deposition of SiC Films in a Large-Scale Low-Pressure CVD Growth, Chemical, and Mechanical Characterization Reactor. Journal of the Electrochemical Society, 2006, 153, C562.	2.9	24
188	Molecular vapor deposition (MVD) for improved SAM coatings. , 2005, , .		5
189	Bonding characteristics of 3C-SiC wafers with hydrofluoric acid for high-temperature MEMS applications. Sensors and Actuators A: Physical, 2005, 119, 599-604.	4.1	23
190	Si Nanowire Bridges in Microtrenches: Integration of Growth into Device Fabrication. Advanced Materials, 2005, 17, 2098-2102.	21.0	140
191	Adhesion characteristics of MEMS in microfluidic environments. Journal of Microelectromechanical Systems, 2005, 14, 947-953.	2.5	20
192	Selective Growth of Si Nanowire Arrays via Galvanic Displacement Processes in Water-in-Oil Microemulsions. Journal of the American Chemical Society, 2005, 127, 4574-4575.	13.7	77
193	Transformer coupled plasma etching of 3C-SiC films using fluorinated chemistry for microelectromechanical systems applications. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 513.	1.6	12
194	Single-Source Chemical Vapor Deposition of 3C-SiC Films in a LPCVD Reactor. Journal of the Electrochemical Society, 2004, 151, C210.	2.9	54
195	Single-Source CVD of 3C-SiC Films in a LPCVD Reactor. Journal of the Electrochemical Society, 2004, 151, C215.	2.9	9
196	Tribological Impact of SiC Encapsulation of Released Polycrystalline Silicon Microstructures. Tribology Letters, 2004, 17, 195-198.	2.6	42
197	Fracture of Polycrystalline 3C-SiC Films in Microelectromechanical Systems. Journal of Microelectromechanical Systems, 2004, 13, 972-976.	2.5	20
198	Recent Progress Toward a Manufacturable Polycrystalline SiC Surface Micromachining Technology. IEEE Sensors Journal, 2004, 4, 441-448.	4.7	63

#	ARTICLE	IF	CITATIONS
199	Chemical and Thermal Stability of Alkanethiol and Sulfur Passivated InP(100). Langmuir, 2004, 20, 743-747.	3.5	52
200	High-Performance Surface-Micromachined Inchworm Actuator. Journal of Microelectromechanical Systems, 2004, 13, 63-74.	2.5	133
201	SURFACE CHEMISTRY AND TRIBOLOGY OF MEMS. Annual Review of Physical Chemistry, 2004, 55, 35-54.	10.8	178
202	Improved vapor-phase deposition technique for antistiction monolayers. , 2004, 5342, 204.		6
203	Nitrogen doping of polycrystalline 3C-SiC films grown using 1,3-disilabutane in a conventional LPCVD reactor. Journal of Crystal Growth, 2003, 259, 18-25.	1.5	43
204	Adhesion evaluation of immersion plating copper films on silicon by microindentation measurements. Thin Solid Films, 2003, 434, 100-105.	1.8	28
205	Wafer level anti-stiction coatings for MEMS. Sensors and Actuators A: Physical, 2003, 104, 213-221.	4.1	91
206	Vapor phase anti-stiction coatings for MEMS. IEEE Transactions on Device and Materials Reliability, 2003, 3, 173-178.	2.0	106
207	High-selectivity etching of polycrystalline 3C-SiC films using HBr-based transformer coupled plasma. Applied Physics Letters, 2003, 82, 1742-1744.	3.3	33
208	Theoretical and experimental study of the chemisorption of 1,3 disilabutane on the Si(100) surface. Journal of Chemical Physics, 2003, 118, 6089-6097.	3.0	4
209	Surface engineering for reliable operation of MEMS devices. Journal of Adhesion Science and Technology, 2003, 17, 583-591.	2.6	21
210	MEMS Rotary Engine Power System. IEEJ Transactions on Sensors and Micromachines, 2003, 123, 326-330.	0.1	22
211	Gold Deposition by Galvanic Displacement on Semiconductor Surfaces:Â Effect of Substrate on Adhesion. Journal of Physical Chemistry B, 2002, 106, 401-407.	2.6	143
212	A low-temperature CVD process for silicon carbide MEMS. Sensors and Actuators A: Physical, 2002, 97-98, 410-415.	4.1	108
213	Selective deposition of gold nanoclusters on silicon by a galvanic displacement process. Microelectronic Engineering, 2002, 64, 479-485.	2.4	39
214	Nitrogen doping of polycrystalline 3C-SiC films grown by single-source chemical vapor deposition. Thin Solid Films, 2002, 419, 69-75.	1.8	35
215	Selective metallization of silicon micromechanical devices. Electrochimica Acta, 2002, 47, 2583-2588.	5.2	41
216	Tribological Challenges in Micromechanical Systems. Tribology Letters, 2002, 12, 95-100.	2.6	226

#	ARTICLE	IF	CITATIONS
217	Characterization of AFM cantilevers coated with diamond-like carbon. <i>Diamond and Related Materials</i> , 2001, 10, 2190-2194.	3.9	20
218	Micromechanical properties of silicon-carbide thin films deposited using single-source chemical-vapor deposition. <i>Applied Physics Letters</i> , 2001, 79, 347-349.	3.3	51
219	Formation of Alkanethiol Monolayer on Ge(111). <i>Journal of the American Chemical Society</i> , 2001, 123, 2422-2425.	13.7	70
220	Alkene based monolayer films as anti-stiction coatings for polysilicon MEMS. <i>Sensors and Actuators A: Physical</i> , 2001, 91, 239-248.	4.1	149
221	Dichlorodimethylsilane as an anti-stiction monolayer for MEMS: a comparison to the octadecyltrichlorosilane self-assembled monolayer. <i>Journal of Microelectromechanical Systems</i> , 2001, 10, 41-49.	2.5	163
222	Functionalization of Scanning Force Microscopy Cantilevers via Galvanic Displacement Technique. <i>Tribology Letters</i> , 2001, 11, 171-175.	2.6	6
223	Vibrational Spectra of Hydrogenated Buckminsterfullerene: A Candidate for the Unidentified Infrared Emission. <i>Astrophysical Journal</i> , 2001, 548, L225-L228.	4.5	34
224	Adhesion hysteresis of silane coated microcantilevers. <i>Acta Materialia</i> , 2000, 48, 4531-4541.	7.9	86
225	Factors enhancing the reliability of touch-mode electrostatic actuators. <i>Sensors and Actuators A: Physical</i> , 2000, 79, 245-250.	4.1	56
226	Self-assembled monolayers as anti-stiction coatings for MEMS: characteristics and recent developments. <i>Sensors and Actuators A: Physical</i> , 2000, 82, 219-223.	4.1	344
227	Reversible Liquid-Liquid Transitions in the Early Stages of Monolayer Self-Assembly. <i>Journal of Physical Chemistry B</i> , 2000, 104, 1556-1559.	2.6	36
228	Direct observation of sulfur dimers in alkanethiol self-assembled monolayers on Au(111). <i>Physical Review B</i> , 1999, 59, R10449-R10452.	3.2	116
229	Formation of alkylsiloxane self-assembled monolayers on Si ₃ N ₄ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1999, 17, 540-544.	2.1	47
230	Surface processes in MEMS technology. <i>Surface Science Reports</i> , 1998, 30, 207-269.	7.2	264
231	Alkyltrichlorosilane-based self-assembled monolayer films for stiction reduction in silicon micromachines. <i>Journal of Microelectromechanical Systems</i> , 1998, 7, 252-260.	2.5	396
232	Observation of Three Growth Mechanisms in Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , 1998, 102, 4441-4445.	2.6	147
233	Study of the desorption mechanism of alkylsiloxane self-assembled monolayers through isotopic labeling and high resolution electron energy-loss spectroscopy experiments. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998, 16, 932-936.	2.1	35
234	Adhesion and Friction Issues Associated With Reliable Operation of MEMS. <i>MRS Bulletin</i> , 1998, 23, 47-51.	3.5	66

#	ARTICLE	IF	CITATIONS
235	<title>Antistiction coatings for surface micromachines</title>. , 1998, 3511, 108.		5
236	Effect of hydrogen termination on the work of adhesion between rough polycrystalline silicon surfaces. Journal of Applied Physics, 1997, 81, 3474-3483.	2.5	92
237	Thermal Behavior of Alkyl Monolayers on Silicon Surfaces. Langmuir, 1997, 13, 6164-6168.	3.5	218
238	Thermal Behavior of Alkylsiloxane Self-Assembled Monolayers on the Oxidized Si(100) Surface. Langmuir, 1997, 13, 3775-3780.	3.5	161
239	Interaction of H(D) Atoms with Octadecylsiloxane Self-Assembled Monolayers on the Si(100) Surface. Langmuir, 1997, 13, 6491-6496.	3.5	18
240	Critical Review: Adhesion in surface micromechanical structures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1.	1.6	787
241	Stiction reduction processes for surfacemicromachines. Tribology Letters, 1997, 3, 215-221.	2.6	67
242	Oxidation mechanism of the ammonium fluoride-treated Si(100) surface. Journal of Applied Physics, 1996, 80, 5408-5414.	2.5	35
243	Stability of ammonium fluoride-treated Si(100). Journal of Applied Physics, 1995, 78, 3801-3808.	2.5	61
244	Resonant scanning tunneling spectroscopy of a quantum-well heterostructure. Surface Science Letters, 1993, 280, 263-266.	0.1	0
245	Comment on "Structure and composition of GaAs(001) surfaces". Physical Review Letters, 1993, 70, 3172-3172.	7.8	22
246	Energy and angle-resolved measurements of the Rh(4F9/2) and Rh(4F7/2) populations from ion bombarded Rh{100}. Journal of Chemical Physics, 1992, 96, 6314-6317.	3.0	23
247	Angle-resolved velocity distributions of excited Rh atoms ejected from ion-bombarded Rh{100}. Journal of Chemical Physics, 1992, 97, 3846-3854.	3.0	23
248	Electronic and nuclear effects in ion-induced desorption from NaCl{100}. Journal of Chemical Physics, 1992, 96, 3298-3305.	3.0	24
249	Energy and angular distributions of excited rhodium atoms ejected from the rhodium (100) surface. Physical Review B, 1991, 43, 12078-12081.	3.2	9
250	Angular and Energy Distributions of RH Atoms Desorbed in an Excited State from Ion-Bombarded Rh{100}. Materials Research Society Symposia Proceedings, 1990, 201, 87.	0.1	0
251	Angular distribution of Rh atoms desorbed from ion-bombarded Rh{100}: Effect of local environment. Physical Review B, 1990, 42, 7311-7316.	3.2	39
252	Observation of near-surface damage by phonon scattering. Physical Review B, 1988, 38, 12190-12199.	3.2	0

#	ARTICLE	IF	CITATIONS
253	Experiments on Quantum and Thermal Desorption from He4 Films. Physical Review Letters, 1985, 54, 2034-2037.	7.8	10