Yves Chabal

List of Publications by Year
in descending order

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425	33,616	2970	4770
papers	citations	93 h-index	169 g-index

435	435	435	31330
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural evolution during the reduction of chemically derived graphene oxide. Nature Chemistry, 2010, 2, 581-587.	6.6	1,573
2	Ideal hydrogen termination of the Siâ€‰(111) surface. Applied Physics Letters, 1990, 56, 656-658.	1.5	1,415
3	Hydrothermal Synthesis of Graphene-TiO₂ Nanotube Composites with Enhanced Photocatalytic Activity. ACS Catalysis, 2012, 2, 949-956.	5.5	863
4	The Role of Oxygen during Thermal Reduction of Graphene Oxide Studied by Infrared Absorption Spectroscopy. Journal of Physical Chemistry C, 2011, 115, 19761-19781.	1.5	776
5	Unusual infrared-absorption mechanism in thermally reduced graphene oxide. Nature Materials, 2010, 9, 840-845.	13.3	724
6	Infrared spectroscopy of Si(111) and Si(100) surfaces after HF treatment: Hydrogen termination and surface morphology. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 2104-2109.	0.9	638
7	Probing the catalytic activity of porous graphene oxide and the origin of this behaviour. Nature Communications, 2012, 3, 1298.	5.8	538
8	Room-temperature metastability of multilayer graphene oxide films. Nature Materials, 2012, 11, 544-549.	13.3	512
9	Comparison of Si(111) surfaces prepared using aqueous solutions of NH4F versus HF. Applied Physics Letters, 1991, 58, 1656-1658.	1.5	497
10	Infrared spectroscopy of Si(111) surfaces after HF treatment: Hydrogen termination and surface morphology. Applied Physics Letters, 1988, 53, 998-1000.	1.5	473
11	Enhanced Binding Affinity, Remarkable Selectivity, and High Capacity of CO₂ by Dual Functionalization of a rhtâ€Type Metalâ€“Organic Framework. Angewandte Chemie - International Edition, 2012, 51, 1412-1415.	7.2	430
12	Attachment of 3-(Aminopropyl)triethoxysilane on Silicon Oxide Surfaces: Dependence on Solution Temperature. Langmuir, 2008, 24, 12963-12971.	1.6	405
13	Stability and Hydrolyzation of Metal Organic Frameworks with Paddle-Wheel SBUs upon Hydration. Chemistry of Materials, 2012, 24, 3153-3167.	3.2	368
14	Mechanism of HF etching of silicon surfaces: A theoretical understanding of hydrogen passivation. Physical Review Letters, 1990, 65, 504-507.	2.9	365
15	Atomic-scale conversion of clean Si(111):H-1Ã—1 to Si(111)-2Ã—1 by electron-stimulated desorption. Physical Review Letters, 1990, 65, 1917-1920.	2.9	359
16	The Role of Intercalated Water in Multilayered Graphene Oxide. ACS Nano, 2010, 4, 5861-5868.	7.3	359
17	New Ordered Structure for the H-Saturated Si(100) Surface: The (3Ã—1) Phase. Physical Review Letters, 1985, 54, 1055-1058.	2.9	325
18	Size, shape, and composition of luminescent species in oxidized Si nanocrystals and H-passivated porous Si. Physical Review B, 1995, 52, 4910-4925.	1.1	323

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19	Highly Efficient Luminescent Metalâ€“Organic Framework for the Simultaneous Detection and Removal of Heavy Metals from Water. ACS Applied Materials & Interfaces, 2016, 8, 30294-30303.	4.0	320
20	Creating Hierarchical Pores by Controlled Linker Thermolysis in Multivariate Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2018, 140, 2363-2372.	6.6	310
21	Chemical etching of vicinal Si(111): Dependence of the surface structure and the hydrogen termination on the pH of the etching solutions. Journal of Chemical Physics, 1991, 95, 2897-2909.	1.2	309
22	Surface Infrared Study of Si(100)-(2Ã—1)H. Physical Review Letters, 1984, 53, 282-285.	2.9	306
23	Vanadium Oxide Nanowireâ€“Carbon Nanotube Binderâ€Free Flexible Electrodes for Supercapacitors. Advanced Energy Materials, 2011, 1, 936-945.	10.2	303
24	Synthesis, Characterization, and Photocatalytic Activity of Y-Doped CeO₂ Nanorods. ACS Catalysis, 2014, 4, 577-584.	5.5	301
25	HfO2 and Al2O3 gate dielectrics on GaAs grown by atomic layer deposition. Applied Physics Letters, 2005, 86, 152904.	1.5	300
26	On the mechanism of the hydrogen-induced exfoliation of silicon. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1065.	1.6	298
27	Dimensions of luminescent oxidized and porous silicon structures. Physical Review Letters, 1994, 72, 2648-2651.	2.9	294
28	Tuning the Gate Opening Pressure of Metalâ€“Organic Frameworks (MOFs) for the Selective Separation of Hydrocarbons. Journal of the American Chemical Society, 2012, 134, 15201-15204.	6.6	278
29	Metal Contacts on Physical Vapor Deposited Monolayer MoS₂. ACS Nano, 2013, 7, 11350-11357.	7.3	275
30	Lifetime of an adsorbate-substrate vibration: H on Si(111). Physical Review Letters, 1990, 64, 2156-2159.	2.9	263
31	High Îµ gate dielectrics Gd2O3 and Y2O3 for silicon. Applied Physics Letters, 2000, 77, 130-132.	1.5	255
32	Topologically guided tuning of Zr-MOF pore structures for highly selective separation of C6 alkane isomers. Nature Communications, 2018, 9, 1745.	5.8	251
33	Properties of high Îº gate dielectrics Gd2O3 and Y2O3 for Si. Journal of Applied Physics, 2001, 89, 3920-3927.	1.1	250
34	Infrared spectroscopic analysis of the Si/SiO2 interface structure of thermally oxidized silicon. Journal of Applied Physics, 2000, 87, 1322-1330.	1.1	249
35	Adsorbate-substrate resonant interactions observed for CO on Cu(100) in the far infrared. Physical Review Letters, 1990, 65, 480-483.	2.9	244
36	Coupling of an adsorbate vibration to a substrate surface phonon: H on Si(111). Physical Review Letters, 1990, 65, 1124-1127.	2.9	239

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37	Recovery of Nonwetting Characteristics by Surface Modification of Gallium-Based Liquid Metal Droplets Using Hydrochloric Acid Vapor. ACS Applied Materials & Interfaces, 2013, 5, 179-185.	4.0	225
38	Simultaneous Trapping of C₂H₂ and C₂H₆ from a Ternary Mixture of C₂H₂/C₂H₄/C₂H₆ in a Robust Metalâ€“Organic Framework for the Purification of C₂H₄. Angewandte Chemie - International Edition, 2018, 57, 16067-16071.	7.2	223
39	InitialH2O-induced Oxidation of Si(100)â€“(2Ã—1). Physical Review Letters, 1997, 79, 2851-2854.	2.9	204
40	Evidence of dissociation of water on the Si(100)2 Ã— 1 surface. Physical Review B, 1984, 29, 6974-6976.	1.1	199
41	Metallic Contact Formation for Molecular Electronics:Â Interactions between Vapor-Deposited Metals and Self-Assembled Monolayers of Conjugated Mono- and Dithiols. Langmuir, 2004, 20, 1539-1542.	1.6	194
42	Genipinâ€induced changes in collagen gels: Correlation of mechanical properties to fluorescence. Journal of Biomedical Materials Research - Part A, 2008, 87A, 308-320.	2.1	185
43	Enhancing Gas Adsorption and Separation Capacity through Ligand Functionalization of Microporous Metalâ€“Organic Frameworks. Chemistry - A European Journal, 2011, 17, 5101-5109.	1.7	176
44	Sensing the Charge State of Single Gold Nanoparticles via Work Function Measurements. Nano Letters, 2015, 15, 51-55.	4.5	174
45	Capture of organic iodides from nuclear waste by metal-organic framework-based molecular traps. Nature Communications, 2017, 8, 485.	5.8	171
46	Microscopic Co Diffusion on a Pt(111) Surface by Time-Resolved Infrared Spectroscopy. Physical Review Letters, 1988, 61, 2778-2781.	2.9	166
47	Hydrogen chemisorption on Si(111)-(7Ã—7) and -(1Ã—1) surfaces. A comparative infrared study. Physical Review B, 1983, 28, 4472-4479.	1.1	158
48	Electronic Damping of Hydrogen Vibration on the W(100) Surface. Physical Review Letters, 1985, 55, 845-848.	2.9	158
49	Competitive Coadsorption of CO₂ with H₂O, NH₃, SO₂, NO, NO₂, N₂, O₂, and CH₄ in M-MOF-74 (M = Mg, Co, Ni): The Role of Hydrogen Bonding. Chemistry of Materials, 2015, 27, 2203-2217.	3.2	158
50	Nucleation and interface formation mechanisms in atomic layer deposition of gate oxides. Applied Physics Letters, 2003, 82, 4758-4760.	1.5	155
51	Understanding and controlling water stability of MOF-74. Journal of Materials Chemistry A, 2016, 4, 5176-5183.	5.2	155
52	Electronic structure and its dependence on local order for H/Si(111)-(1Ã—1) surfaces. Physical Review Letters, 1993, 70, 1992-1995.	2.9	153
53	Infrared linewidths and vibrational lifetimes at surfaces: H on Si(100). Physical Review B, 1985, 31, 1184-1186.	1.1	149
54	Water Reaction Mechanism in Metal Organic Frameworks with Coordinatively Unsaturated Metal Ions: MOF-74. Chemistry of Materials, 2014, 26, 6886-6895.	3.2	149

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55	Water interactions in metal organic frameworks. CrystEngComm, 2015, 17, 247-260.	1.3	148
56	Multilayered Al/CuO thermite formation by reactive magnetron sputtering: Nano versus micro. Journal of Applied Physics, 2010, 108, .	1.1	145
57	Interfacial charge distributions in carbon-supported palladium catalysts. Nature Communications, 2017, 8, 340.	5.8	145
58	Infrared Characterization of Interfacial Siâ˜O Bond Formation on Silanized Flat SiO₂/Si Surfaces. Langmuir, 2010, 26, 4563-4566.	1.6	144
59	Hydrogen passivation of germanium (100) surface using wet chemical preparation. Applied Physics Letters, 2005, 87, 253101.	1.5	143
60	Vanadium oxide nanowire â€“ Graphene binder free nanocomposite paper electrodes for supercapacitors: A facile green approach. Journal of Power Sources, 2013, 230, 130-137.	4.0	142
61	Field Emission from Atomically Thin Edges of Reduced Graphene Oxide. ACS Nano, 2011, 5, 4945-4952.	7.3	139
62	Hydride formation on the Si(100):H2O surface. Physical Review B, 1984, 29, 3677-3680.	1.1	135
63	Nanopatterning Si(111) surfaces as a selective surface-chemistry route. Nature Materials, 2010, 9, 266-271.	13.3	133
64	Synthesis and Characterization of Conjugated Mono- and Dithiol Oligomers and Characterization of Their Self-Assembled Monolayers. Langmuir, 2003, 19, 4272-4284.	1.6	132
65	Alkaline deoxygenated graphene oxide for supercapacitor applications: An effective green alternative for chemically reduced graphene. Journal of Power Sources, 2012, 215, 1-10.	4.0	128
66	Mechanism of Preferential Adsorption of SO₂ into Two Microporous Paddle Wheel Frameworks M(bdc)(ted)_{0.5}. Chemistry of Materials, 2013, 25, 4653-4662.	3.2	127
67	CO diffusion on Pt(111) with timeâ€resolved infraredâ€pulsed molecular beam methods: Critical tests and analysis. Journal of Chemical Physics, 1990, 93, 9113-9129.	1.2	126
68	Nanochemistry at the atomic scale revealed in hydrogen-induced semiconductor surface metallization. Nature Materials, 2003, 2, 253-258.	13.3	125
69	Manganese oxide nanorodâ€“graphene/vanadium oxide nanowireâ€“graphene binder-free paper electrodes for metal oxide hybrid supercapacitors. Nano Energy, 2013, 2, 966-975.	8.2	125
70	Chemical Properties of Oxidized Silicon Carbide Surfaces upon Etching in Hydrofluoric Acid. Journal of the American Chemical Society, 2009, 131, 16808-16813.	6.6	124
71	Nature of Graphene Edges: A Review. Japanese Journal of Applied Physics, 2011, 50, 070101.	0.8	121
72	Metalâ€“Grapheneâ€“Metal Sandwich Contacts for Enhanced Interface Bonding and Work Function Control. ACS Nano, 2012, 6, 5381-5387.	7.3	114

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73	Water Cluster Confinement and Methane Adsorption in the Hydrophobic Cavities of a Fluorinated Metalâ€“Organic Framework. Journal of the American Chemical Society, 2013, 135, 12615-12626.	6.6	114
74	Rational design of common transition metal-nitrogen-carbon catalysts for oxygen reduction reaction in fuel cells. Nano Energy, 2016, 30, 443-449.	8.2	114
75	Enhanced initial growth of atomic-layer-deposited metal oxides on hydrogen-terminated silicon. Applied Physics Letters, 2003, 83, 740-742.	1.5	113
76	Nature of Graphene Edges: A Review. Japanese Journal of Applied Physics, 2011, 50, 070101.	0.8	113
77	Silicon Epoxide: Unexpected Intermediate during Silicon Oxide Formation. Physical Review Letters, 1998, 81, 3908-3911.	2.9	112
78	Exfoliated graphite nanoplateletsâ€“V2O5 nanotube composite electrodes for supercapacitors. Journal of Power Sources, 2012, 203, 227-232.	4.0	112
79	Effective sensing of RDX via instant and selective detection of ketone vapors. Chemical Science, 2014, 5, 4873-4877.	3.7	112
80	â„¢M3: A Multifunctional Microporous MOF with Recyclable Framework and High H2 Binding Energy. Inorganic Chemistry, 2009, 48, 7165-7173.	1.9	109
81	Hydrogen Vibration on Si(111) 7 Ã— 7: Evidence for a Unique Chemisorption Site. Physical Review Letters, 1983, 50, 1850-1853.	2.9	108
82	Characteristics of high-k Al2O3 dielectric using ozone-based atomic layer deposition for dual-gated graphene devices. Applied Physics Letters, 2010, 97, .	1.5	108
83	Selective, Sensitive, and Reversible Detection of Vapor-Phase High Explosives via Two-Dimensional Mapping: A New Strategy for MOF-Based Sensors. Crystal Growth and Design, 2013, 13, 4204-4207.	1.4	107
84	Vibrational energy transfer on hydrogenâ€terminated vicinal Si(111) surfaces: Interadsorbate energy flow. Journal of Chemical Physics, 1992, 96, 6203-6212.	1.2	106
85	The Effect of Methyl Functionalization on Microporous Metalâ€Organic Frameworks' Capacity and Binding Energy for Carbon Dioxide Adsorption. Advanced Functional Materials, 2011, 21, 4754-4762.	7.8	106
86	Understanding the Preferential Adsorption of CO₂ over N₂ in a Flexible Metalâ€“Organic Framework. Journal of the American Chemical Society, 2011, 133, 12849-12857.	6.6	103
87	Progression of Solid Electrolyte Interphase Formation on Hydrogenated Amorphous Silicon Anodes for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2012, 116, 9072-9077.	1.5	99
88	Interaction of Acid Gases SO₂ and NO₂ with Coordinatively Unsaturated Metal Organic Frameworks: M-MOF-74 (M = Zn, Mg, Ni, Co). Chemistry of Materials, 2017, 29, 4227-4235.	3.2	99
89	Infrared Absorption ina-Si: H: First Observation of Gaseous MolecularH2and Si-H Overtone. Physical Review Letters, 1984, 53, 210-213.	2.9	98
90	Diffusion of Small Molecules in Metal Organic Framework Materials. Physical Review Letters, 2013, 110, 026102.	2.9	98

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91	Mechanism of Carbon Dioxide Adsorption in a Highly Selective Coordination Network Supported by Direct Structural Evidence. Angewandte Chemie - International Edition, 2013, 52, 1692-1695.	7.2	97
92	Role of Interdimer Interactions inNH3Dissociation onSi(100)â˜(2Ã—1). Physical Review Letters, 2001, 86, 1046-1049.	2.9	96
93	Mechanism of silicon exfoliation induced by hydrogen/helium co-implantation. Applied Physics Letters, 1998, 73, 3721-3723.	1.5	95
94	Infrared Characterization of Biotinylated Silicon Oxide Surfaces, Surface Stability, and Specific Attachment of Streptavidin. Journal of Physical Chemistry B, 2009, 113, 8776-8783.	1.2	94
95	Photoemission and band-structure results for NiSi2. Physical Review B, 1982, 25, 7598-7602.	1.1	93
96	Realistic Metalâ€“Graphene Contact Structures. ACS Nano, 2014, 8, 642-649.	7.3	93
97	Rapid desolvation-triggered domino lattice rearrangement in a metalâ€“organic framework. Nature Chemistry, 2020, 12, 90-97.	6.6	93
98	Copperâ˜Metal Deposition on Self Assembled Monolayer for Making Top Contacts in Molecular Electronic Devices. Journal of the American Chemical Society, 2009, 131, 18159-18167.	6.6	91
99	Influence of silicon oxide on the morphology of HFâ€etched Si(111) surfaces: Thermal versus chemical oxide. Applied Physics Letters, 1991, 59, 2968-2970.	1.5	90
100	Interfacial Chemistry in Al/CuO Reactive Nanomaterial and Its Role in Exothermic Reaction. ACS Applied Materials & Interfaces, 2013, 5, 605-613.	4.0	90
101	In situ infrared spectroscopy of hafnium oxide growth on hydrogen-terminated silicon surfaces by atomic layer deposition. Applied Physics Letters, 2005, 87, 133103.	1.5	89
102	Rapid Selective Etching of PMMA Residues from Transferred Graphene by Carbon Dioxide. Journal of Physical Chemistry C, 2013, 117, 23000-23008.	1.5	89
103	Coupling of H vibration to substrate electronic states in Mo(100)-p(1Ã—1)H and W(100)-p(1Ã—1)H: Example of strong breakdown of adiabaticity. Physical Review B, 1988, 38, 3112-3132.	1.1	88
104	Stability of HF-etched Si(100) surfaces in oxygen ambient. Applied Physics Letters, 2001, 79, 4051-4053.	1.5	88
105	Interaction of Molecular Hydrogen with Microporous Metal Organic Framework Materials at Room Temperature. Journal of the American Chemical Society, 2010, 132, 1654-1664.	6.6	88
106	Chemomechanical polishing of silicon: Surface termination and mechanism of removal. Applied Physics Letters, 1994, 64, 3115-3117.	1.5	87
107	Suppression of subcutaneous oxidation during the deposition of amorphous lanthanum aluminate on silicon. Applied Physics Letters, 2004, 84, 4629-4631.	1.5	87
108	Precursor design and reaction mechanisms for the atomic layer deposition of metal films. Coordination Chemistry Reviews, 2013, 257, 3271-3281.	9.5	82

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109	Silicon Surface Modification and Characterization for Emergent Photovoltaic Applications Based on Energy Transfer. Chemical Reviews, 2015, 115, 12764-12796.	23.0	81
110	Transmission Infrared Spectroscopy of Methyl- and Ethyl-Terminated Silicon(111) Surfaces. Journal of Physical Chemistry B, 2006, 110, 7349-7356.	1.2	80
111	In Situ Infrared Characterization during Atomic Layer Deposition of Lanthanum Oxide. Journal of Physical Chemistry C, 2009, 113, 654-660.	1.5	80
112	Laserâ€assisted deposition of iron on Si(111)â€(7Ã—7): The mechanism and energetics of Fe(CO)5 decomposition. Journal of Chemical Physics, 1987, 87, 5028-5037.	1.2	79
113	A vibrational study of ethanol adsorption on Si(100). Journal of Chemical Physics, 1997, 106, 9889-9898.	1.2	79
114	Measuring the structure of etched silicon surfaces with Raman spectroscopy. Journal of Chemical Physics, 1994, 101, 8055-8072.	1.2	77
115	High-Resolution Infrared Study of Hydrogen (1Ã—1) on Tungsten (100). Physical Review Letters, 1980, 44, 944-947.	2.9	76
116	Partially oxidized graphene as a precursor to graphene. Journal of Materials Chemistry, 2011, 21, 11217.	6.7	76
117	Silanone(Si=O)on Si(100): intermediate for initial silicon oxidation. Physical Review B, 2002, 66, .	1.1	75
118	Physics and chemistry of silicon wafer bonding investigated by infrared absorption spectroscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 3095.	1.6	74
119	Siâ€“H bending modes as a probe of local chemical structure: Thermal and chemical routes to decomposition of H2O on Si(100)-(2Ã—1). Journal of Chemical Physics, 2000, 113, 2440-2446.	1.2	74
120	Materials Characterization of Alternative Gate Dielectrics. MRS Bulletin, 2002, 27, 206-211.	1.7	74
121	Surface and Interface Processes during Atomic Layer Deposition of Copper on Silicon Oxide. Langmuir, 2010, 26, 3911-3917.	1.6	73
122	Environment-Controlled Tethering by Aggregation and Growth of Phosphonic Acid Monolayers on Silicon Oxide. Langmuir, 2012, 28, 8046-8051.	1.6	73
123	Infrared study of the chemisorption of hydrogen and water on vicinal Si(100) 2Ã—1 surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1985, 3, 1448-1451.	0.9	71
124	Chlorination of hydrogen-terminated silicon (111) surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 1100-1106.	0.9	71
125	Wet chemical surface functionalization of oxide-free silicon. Progress in Surface Science, 2012, 87, 272-290.	3.8	71
126	Simultaneous Trapping of C₂H₂ and C₂H₆ from a Ternary Mixture of C₂H₂/C₂H₄/C₂H₆ in a Robust Metalâ€“Organic Framework for the Purification of C₂H₄. Angewandte Chemie, 2018, 130, 16299-16303.	1.6	71

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127	Low-Temperature Synthesis of a TiO₂/Si Heterojunction. Journal of the American Chemical Society, 2015, 137, 14842-14845.	6.6	70
128	Selective Extraction of Thorium from Rare Earth Elements Using Wrinkled Mesoporous Carbon. Journal of the American Chemical Society, 2018, 140, 14735-14739.	6.6	70
129	Lowâ€frequency dynamics of CO/Cu breakdown of Bornâ€“Oppenheimer approximation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2229-2234.	0.9	69
130	Influence of growth temperature on bulk and surface defects in hybrid lead halide perovskite films. Nanoscale, 2016, 8, 1627-1634.	2.8	69
131	Controlled Deposition of Gold Nanoparticles on Well-Defined Organic Monolayer Grafted on Silicon Surfaces. Journal of Physical Chemistry C, 2010, 114, 14180-14186.	1.5	68
132	Activation of Surface Hydroxyl Groups by Modification of H-Terminated Si(111) Surfaces. Journal of the American Chemical Society, 2012, 134, 8869-8874.	6.6	68
133	Enhancing the Reactivity of Al/CuO Nanolaminates by Cu Incorporation at the Interfaces. ACS Applied Materials & Interfaces, 2015, 7, 11713-11718.	4.0	68
134	Buckling Reconstruction on Laser-Annealed Si(111) Surfaces. Physical Review Letters, 1981, 46, 600-603.	2.9	67
135	Atomic Scale Oxidation of a Complex System:O2/Î±-SiC(0001)-(3Ã—3). Physical Review Letters, 2001, 86, 4342-4345.	2.9	67
136	Hafnium oxide gate dielectrics grown from an alkoxide precursor: structure and defects. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 109, 6-10.	1.7	67
137	Oriented Graphene Nanoribbon Yarn and Sheet from Aligned Multiâ€Walled Carbon Nanotube Sheets. Advanced Materials, 2012, 24, 5695-5701.	11.1	67
138	Summary Abstract: Surface state optical absorption on the clean Si(100)2Ã—1 surface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 1241-1242.	0.9	66
139	When metal organic frameworks turn into linear magnets. Physical Review B, 2013, 87, .	1.1	65
140	Infrared Spectroscopic Investigation of the Reaction of Hydrogen-Terminated, (111)-Oriented, Silicon Surfaces with Liquid Methanol. Journal of Physical Chemistry B, 2006, 110, 20426-20434.	1.2	64
141	Monolayer Doping via Phosphonic Acid Grafting on Silicon: Microscopic Insight from Infrared Spectroscopy and Density Functional Theory Calculations. Advanced Functional Materials, 2013, 23, 3471-3477.	7.8	64
142	Stable and Active Oxidation Catalysis by Cooperative Lattice Oxygen Redox on SmMn₂O₅ Mullite Surface. Journal of the American Chemical Society, 2019, 141, 10722-10728.	6.6	64
143	Vibrational energy transfer among adsorbate modes: Picosecond dynamics on stepped H/Si(111). Journal of Chemical Physics, 1993, 99, 6114-6125.	1.2	63
144	Molecular Hydrogen â€œPairingâ€•Interaction in a Metal Organic Framework System with Unsaturated Metal Centers (MOF-74). Journal of the American Chemical Society, 2010, 132, 14834-14848.	6.6	61

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145	Characterization and production metrology of thin transistor gate oxide films. Materials Science in Semiconductor Processing, 1999, 2, 103-147.	1.9	60
146	Trapping gases in metal-organic frameworks with a selective surface molecular barrier layer. Nature Communications, 2016, 7, 13871.	5.8	60
147	The surface science of semiconductor processing: gate oxides in the ever-shrinking transistor. Surface Science, 2002, 500, 859-878.	0.8	59
148	Infrared spectroscopic analysis of an ordered Si/SiO2 interface. Applied Physics Letters, 2004, 84, 493-495.	1.5	59
149	Efficient Radiative and Nonradiative Energy Transfer from Proximal CdSe/ZnS Nanocrystals into Silicon Nanomembranes. ACS Nano, 2012, 6, 5574-5582.	7.3	59
150	Graphitization of Graphene Oxide with Ethanol during Thermal Reduction. Journal of Physical Chemistry C, 2012, 116, 9969-9979.	1.5	59
151	Detection of a Formate Surface Intermediate in the Atomic Layer Deposition of High-Îº Dielectrics Using Ozone. Chemistry of Materials, 2008, 20, 3248-3250.	3.2	58
152	Controlling the Atomic Layer Deposition of Titanium Dioxide on Silicon: Dependence on Surface Termination. Journal of Physical Chemistry C, 2013, 117, 20250-20259.	1.5	58
153	Mechanistic studies of silicon oxidation. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 1795.	1.6	57
154	Controlled Silicon Surface Functionalization by Alkene Hydrosilylation. Journal of the American Chemical Society, 2005, 127, 12798-12799.	6.6	57
155	Nitrogen interaction with hydrogen-terminated silicon surfaces at the atomic scale. Nature Materials, 2009, 8, 825-830.	13.3	57
156	Substrate Selectivity of (^tBu-Allyl)Co(CO)₃ during Thermal Atomic Layer Deposition of Cobalt. Chemistry of Materials, 2012, 24, 1025-1030.	3.2	57
157	Low temperature formation of Si(111)7Ã—7 surfaces from chemically prepared H/Si(111)â€1Ã—1) surfaces. Applied Physics Letters, 1994, 64, 3308-3310.	1.5	56
158	Infraredâ€absorption spectroscopy of Si(100) and Si(111) surfaces after chemomechanical polishing. Journal of Applied Physics, 1995, 78, 1650-1658.	1.1	56
159	Control and stability of self-assembled monolayers under biosensing conditions. Journal of Materials Chemistry, 2011, 21, 4384.	6.7	55
160	Molecular hydrogen ina-Si: H. Reviews of Modern Physics, 1987, 59, 835-844.	16.4	54
161	Interaction of H, O2, and H2O with 3C-SiC surfaces. Journal of Chemical Physics, 2003, 119, 6201-6209.	1.2	54
162	Gas phase chlorination of hydrogen-passivated silicon surfaces. Applied Physics Letters, 2004, 85, 2583-2585.	1.5	54

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163	Atomic Layer Deposition of Aluminum Oxide on Carboxylic Acid-Terminated Self-Assembled Monolayers. Langmuir, 2009, 25, 1911-1914.	1.6	54
164	Quenching of photoluminescence in a Zn-MOF sensor by nitroaromatic molecules. Journal of Materials Chemistry C, 2019, 7, 2625-2632.	2.7	54
165	Superior catalytic performance of Mn-Mullite over Mn-Perovskite for NO oxidation. Catalysis Today, 2018, 310, 195-201.	2.2	52
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