

# Yves Chabal

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

424  
papers

29,485  
citations

89  
h-index

158  
g-index

435  
ext. papers

31,497  
ext. citations

6.6  
avg, IF

6.93  
L-index

#	Paper	IF	Citations
4 <sup>24</sup>	Yttrium Oxide-Catalyzed Formation of Electrically Conductive Carbon for Supercapacitors. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 12499-12507	6.1	3
4 <sup>23</sup>	Role of Surface Oxygen Vacancies in Intermediate Formation on Mullite-type Oxides upon NO Adsorption. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 15913-15919	3.8	3
4 <sup>22</sup>	Adsorption Sites, Bonding Configurations, Reactions and Mass Transport Surface. <i>Springer Handbooks</i> , <b>2020</b> , 853-902	1.3	
4 <sup>21</sup>	Rapid desolvation-triggered domino lattice rearrangement in a metal-organic framework. <i>Nature Chemistry</i> , <b>2020</b> , 12, 90-97	17.6	60
4 <sup>20</sup>	Reorganization of a photosensitive carbo-benzene layer in a triptych nanocatalyst with enhancement of the photocatalytic hydrogen production from water. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 24765-24778	6.7	2
4 <sup>19</sup>	Structure-Driven Photoluminescence Enhancement in a Zn-Based Metal-Organic Framework. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 7933-7940	9.6	15
4 <sup>18</sup>	Quenching of photoluminescence in a Zn-MOF sensor by nitroaromatic molecules. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 2625-2632	7.1	33
4 <sup>17</sup>	Stable and Active Oxidation Catalysis by Cooperative Lattice Oxygen Redox on SmMnO Mullite Surface. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 10722-10728	16.4	31
4 <sup>16</sup>	Superior low-temperature NO catalytic performance of PrMn <sub>2</sub> O <sub>5</sub> over SmMn <sub>2</sub> O <sub>5</sub> mullite-type catalysts. <i>Catalysis Science and Technology</i> , <b>2019</b> , 9, 2758-2766	5.5	8
4 <sup>15</sup>	Reactivity of Atomic Layer Deposition Precursors with OH/H <sub>2</sub> O-Containing Metal Organic Framework Materials. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 2286-2295	9.6	11
4 <sup>14</sup>	Biphenyl-bridged wrinkled mesoporous silica nanoparticles for radioactive iodine capture. <i>MRS Advances</i> , <b>2019</b> , 4, 435-439	0.7	
4 <sup>13</sup>	Nanoimaging of Organic Charge Retention Effects: Implications for Nonvolatile Memory, Neuromorphic Computing, and High Dielectric Breakdown Devices. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 4711-4716	5.6	2
4 <sup>12</sup>	Integrated Experimental-Theoretical Approach To Determine Reliable Molecular Reaction Mechanisms on Transition-Metal Oxide Surfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 30460-30469	9.5	8
4 <sup>11</sup>	High stability of ultra-small and isolated gold nanoparticles in metal-organic framework materials. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 17536-17546	13	18
4 <sup>10</sup>	A triptych photocatalyst based on the Co-Integration of Ag nanoparticles and carbo-benzene dye into a TiO <sub>2</sub> thin film. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 26347-26360	6.7	8
4 <sup>09</sup>	Luminescent Metal-Organic Framework for Lithium Harvesting Applications. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 6561-6568	8.3	9
4 <sup>08</sup>	Critical Role of Mullite-type Oxides Surface Chemistry on Catalytic NO Oxidation Performance. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 5385-5393	3.8	8

407	Mechanistic study of the atomic layer deposition of scandium oxide films using Sc(MeCp) <sub>2</sub> (Me <sub>2</sub> pz) and ozone. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2019</b> , 37, 011504	2.9	2
406	Nanocast carbon microsphere flowers from a lanthanum-based template. <i>Materials Letters</i> , <b>2019</b> , 234, 224-227	3.3	5
405	Understanding Thermal Evolution and Monolayer Doping of Sulfur-Passivated GaAs(100). <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 8414-8422	3.8	2
404	In Situ Infrared Absorption Study of Plasma-Enhanced Atomic Layer Deposition of Silicon Nitride. <i>Langmuir</i> , <b>2018</b> , 34, 2619-2629	4	8
403	Selective Atomic Layer Deposition Mechanism for Titanium Dioxide Films with (EtCp)Ti(NMe <sub>2</sub> ) <sub>3</sub> : Ozone versus Water. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 970-981	9.6	14
402	Creating Hierarchical Pores by Controlled Linker Thermolysis in Multivariate Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 2363-2372	16.4	200
401	Controlled Growth and Grafting of High-Density Au Nanoparticles on Zinc Oxide Thin Films by Photo-Deposition. <i>Langmuir</i> , <b>2018</b> , 34, 1932-1940	4	14
400	Role of Hydrogen Bonding on Transport of Coadsorbed Gases in Metal-Organic Frameworks Materials. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 856-859	16.4	20
399	Topologically guided tuning of Zr-MOF pore structures for highly selective separation of C <sub>6</sub> alkane isomers. <i>Nature Communications</i> , <b>2018</b> , 9, 1745	17.4	166
398	Structure and Chemical Characterization at the Atomic Level of Reactions in Al/CuO Multilayers. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 1762-1770	6.1	28
397	Superior catalytic performance of Mn-Mullite over Mn-Perovskite for NO oxidation. <i>Catalysis Today</i> , <b>2018</b> , 310, 195-201	5.3	34
396	Gold Nanoparticles on Functionalized Silicon Substrate under Coulomb Blockade Regime: An Experimental and Theoretical Investigation. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 897-903	3.4	7
395	Al Interaction with ZnO Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 17856-17864	3.8	5
394	Surface Chemical Composition and Morphology <b>2018</b> , 505-577		
393	Controlling Chemical Reactions in Confined Environments: Water Dissociation in MOF-74. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 270	2.6	6
392	Chemical Modification Mechanisms in Hybrid Hafnium Oxo-methacrylate Nanocluster Photoresists for Extreme Ultraviolet Patterning. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 6192-6206	9.6	15
391	Engineering Multilayered Nanocrystal Solids with Enhanced Optical Properties Using Metal Oxides for Photonic Applications. <i>ACS Applied Nano Materials</i> , <b>2018</b> , 1, 6782-6789	5.6	10
390	Selective Extraction of Thorium from Rare Earth Elements Using Wrinkled Mesoporous Carbon. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 14735-14739	16.4	45

389	Simultaneous Trapping of C H and C H from a Ternary Mixture of C H /C H /C H in a Robust Metal-Organic Framework for the Purification of C H. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 16067-16071	16.4	121
388	Simultaneous Trapping of C <sub>2</sub> H <sub>2</sub> and C <sub>2</sub> H <sub>6</sub> from a Ternary Mixture of C <sub>2</sub> H <sub>2</sub> /C <sub>2</sub> H <sub>4</sub> /C <sub>2</sub> H <sub>6</sub> in a Robust Metal-Organic Framework for the Purification of C <sub>2</sub> H <sub>4</sub> . <i>Angewandte Chemie</i> , <b>2018</b> , 130, 16299-16303	3.6	47
387	Vapor-Phase Cleaning and Corrosion Inhibition of Copper Films by Ethanol and Heterocyclic Amines. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 38610-38620	9.5	12
386	Water Dissociation and Further Hydroxylation of Perfect and Defective Polar ZnO Model Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 21861-21873	3.8	7
385	Selective Growth of Interface Layers from Reactions of Sc(MeCp)(Mepz) with Oxide Substrates. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 32818-32827	9.5	2
384	Modulation of Water Vapor Sorption by a Fourth-Generation Metal-Organic Material with a Rigid Framework and Self-Switching Pores. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 12545-12552	16.4	30
383	Thermal Atomic Layer Etching of Silica and Alumina Thin Films Using Trimethylaluminum with Hydrogen Fluoride or Fluoroform. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 31784-31794	9.5	9
382	Cobalt and iron segregation and nitride formation from nitrogen plasma treatment of CoFeB surfaces. <i>Journal of Chemical Physics</i> , <b>2017</b> , 146, 052805	3.9	5
381	Order of magnitude enhancement of monolayer MoS photoluminescence due to near-field energy influx from nanocrystal films. <i>Scientific Reports</i> , <b>2017</b> , 7, 41967	4.9	13
380	Oxidative Dehydrogenation of Cyclohexane and Cyclohexene over Y-doped CeO <sub>2</sub> Nanorods. <i>Catalysis Letters</i> , <b>2017</b> , 147, 738-744	2.8	5
379	Novel binder-free electrode materials for supercapacitors utilizing high surface area carbon nanofibers derived from immiscible polymer blends of PBI/6FDA-DAM:DABA. <i>RSC Advances</i> , <b>2017</b> , 7, 20947-20959	3.7	24
378	Interaction of Acid Gases SO <sub>2</sub> and NO <sub>2</sub> with Coordinatively Unsaturated Metal Organic Frameworks: M-MOF-74 (M = Zn, Mg, Ni, Co). <i>Chemistry of Materials</i> , <b>2017</b> , 29, 4227-4235	9.6	72
377	Energy transfer from colloidal nanocrystals to strongly absorbing perovskites. <i>Nanoscale</i> , <b>2017</b> , 9, 8695-8702	9.7	6
376	Basic Mechanisms of Al Interaction with the ZnO Surface. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 12780-12788	9.8	8
375	Reaction Mechanisms of the Atomic Layer Deposition of Tin Oxide Thin Films Using Tributyltin Ethoxide and Ozone. <i>Langmuir</i> , <b>2017</b> , 33, 5998-6004	4	3
374	Substrate selectivity in the low temperature atomic layer deposition of cobalt metal films from bis(1,4-di-tert-butyl-1,3-diazadienyl)cobalt and formic acid. <i>Journal of Chemical Physics</i> , <b>2017</b> , 146, 052813-9	3.9	29
373	Nonuniform Composition Profiles in Amorphous Multimetal Oxide Thin Films Deposited from Aqueous Solution. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 37476-37483	9.5	6
372	DNA Grafting and Arrangement on Oxide Surfaces for Self-Assembly of Al and CuO Nanoparticles. <i>Langmuir</i> , <b>2017</b> , 33, 12193-12203	4	16

371	Performance Enhancement via Incorporation of ZnO Nanolayers in Energetic Al/CuO Multilayers. <i>Langmuir</i> , <b>2017</b> , 33, 11086-11093	4	12
370	Interfacial charge distributions in carbon-supported palladium catalysts. <i>Nature Communications</i> , <b>2017</b> , 8, 340	17.4	101
369	Capture of organic iodides from nuclear waste by metal-organic framework-based molecular traps. <i>Nature Communications</i> , <b>2017</b> , 8, 485	17.4	99
368	Giant PbSe/CdSe/CdSe Quantum Dots: Crystal-Structure-Defined Ultrastable Near-Infrared Photoluminescence from Single Nanocrystals. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 11081-11088	16.4	39
367	Biexciton and trion energy transfer from CdSe/CdS giant nanocrystals to Si substrates. <i>Nanoscale</i> , <b>2017</b> , 9, 19398-19407	7.7	2
366	Role of Trimethylaluminum in Low Temperature Atomic Layer Deposition of Silicon Nitride. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 6022-6029	9.6	3
365	Low-index, smooth Al <sub>2</sub> O <sub>3</sub> films by aqueous solution process. <i>Optical Materials Express</i> , <b>2017</b> , 7, 273	2.6	15
364	Broadband transient absorption study of photoexcitations in lead halide perovskites: Towards a multiband picture. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	39
363	Highly Efficient Luminescent Metal-Organic Framework for the Simultaneous Detection and Removal of Heavy Metals from Water. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 30294-30303	9.5	240
362	Role of Initial Precursor Chemisorption on Incubation Delay for Molybdenum Oxide Atomic Layer Deposition. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 8591-8597	9.6	13
361	Toward Selective Ultra-High-Vacuum Atomic Layer Deposition of Metal Oxides on Si(100). <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 24213-24223	3.8	15
360	Rational design of common transition metal-nitrogen-carbon catalysts for oxygen reduction reaction in fuel cells. <i>Nano Energy</i> , <b>2016</b> , 30, 443-449	17.1	84
359	Cluster assisted water dissociation mechanism in MOF-74 and controlling it using helium. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 11524-11530	13	7
358	Influence of growth temperature on bulk and surface defects in hybrid lead halide perovskite films. <i>Nanoscale</i> , <b>2016</b> , 8, 1627-34	7.7	56
357	Surface etching, chemical modification and characterization of silicon nitride and silicon oxide--selective functionalization of Si <sub>3</sub> N <sub>4</sub> and SiO <sub>2</sub> . <i>Journal of Physics Condensed Matter</i> , <b>2016</b> , 28, 094014	1.8	24
356	Mechanism of Arsenic Monolayer Doping of Oxide-Free Si(111). <i>Chemistry of Materials</i> , <b>2016</b> , 28, 1975-1979	3.7	16
355	Toward Atomic-Scale Patterned Atomic Layer Deposition: Reactions of Al <sub>2</sub> O <sub>3</sub> Precursors on a Si(001) Surface with Mixed Functionalizations. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 2628-2641	3.8	16
354	Understanding and controlling water stability of MOF-74. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 5176-5183	5.1	104

353	Static and dynamic electronic characterization of organic monolayers grafted on a silicon surface. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 3675-84	3.6	14
352	Controlled Deposition and Spectroscopic Signatures of Ordered Multilayer Nanocrystal Assemblies for Optoelectronic Applications. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 378-383	8.1	5
351	Initial nitride formation during plasma-nitridation of cobalt surfaces. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 091602	3.4	8
350	Trapping gases in metal-organic frameworks with a selective surface molecular barrier layer. <i>Nature Communications</i> , <b>2016</b> , 7, 13871	17.4	48
349	Atomic Mechanism of Arsenic Monolayer Doping on oxide-free Silicon(111). <i>MRS Advances</i> , <b>2016</b> , 1, 2345-2353	3.5	1
348	Ammonia modification of oxide-free Si(111) surfaces. <i>Surface Science</i> , <b>2016</b> , 650, 285-294	1.8	10
347	Single Charge Electronics with Gold Nanoparticles and Organic Monolayers. <i>Materials Research Society Symposia Proceedings</i> , <b>2016</b> , 1817, 1		3
346	Atomic Layer Deposition of Silicon Dioxide Using Aminosilanes Di-sec-butylaminosilane and Bis(tert-butylamino)silane with Ozone. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 10927-10935	3.8	29
345	Self-Organized Al <sub>2</sub> Cu Nanocrystals at the Interface of Aluminum-Based Reactive Nanolaminates to Lower Reaction Onset Temperature. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 13104-13	9.5	16
344	General Strategy for the Design of DNA Coding Sequences Applied to Nanoparticle Assembly. <i>Langmuir</i> , <b>2016</b> , 32, 9676-86	4	9
343	Aqueous process to limit hydration of thin-film inorganic oxides. <i>Solid State Sciences</i> , <b>2016</b> , 61, 106-110	3.4	6
342	Chemistry in confined spaces: reactivity of the Zn-MOF-74 channels. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 13176-13182	13	7
341	Silicon Surface Modification and Characterization for Emergent Photovoltaic Applications Based on Energy Transfer. <i>Chemical Reviews</i> , <b>2015</b> , 115, 12764-96	68.1	70
340	Nanopatterning on H-Terminated Si(111) Explained as Dynamic Equilibrium of the Chemical Reaction with Methanol. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 16947-16953	3.8	8
339	Enhancing the Reactivity of Al/CuO Nanolaminates by Cu Incorporation at the Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 11713-8	9.5	55
338	Atomic Layer Deposition of Cobalt Silicide Thin Films Studied by in Situ Infrared Spectroscopy. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 4943-4949	9.6	12
337	Hybrid light sensor based on ultrathin Si nanomembranes sensitized with CdSe/ZnS colloidal nanocrystal quantum dots. <i>Nanoscale</i> , <b>2015</b> , 7, 8524-30	7.7	13
336	Ethylenediamine Grafting on Oxide-Free H-, 1/3 ML F-, and Cl-Terminated Si(111) Surfaces. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 6268-6281	9.6	21

335	Role of Alumina Coatings for Selective and Controlled Bonding of DNA on Technologically Relevant Oxide Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 23527-23543	3.8	16
334	Low-Temperature Synthesis of a TiO <sub>2</sub> /Si Heterojunction. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 14842-5	16.4	59
333	Sensing the charge state of single gold nanoparticles via work function measurements. <i>Nano Letters</i> , <b>2015</b> , 15, 51-5	11.5	137
332	Structural, elastic, thermal, and electronic responses of small-molecule-loaded metal-organic framework materials. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 986-995	13	31
331	Water interactions in metal organic frameworks. <i>CrystEngComm</i> , <b>2015</b> , 17, 247-260	3.3	120
330	Atomically Traceable Nanostructure Fabrication. <i>Journal of Visualized Experiments</i> , <b>2015</b> , e52900	1.6	1
329	Frustrated Etching during H/Si(111) Methoxylation Produces Fissured Fluorinated Surfaces, Whereas Direct Fluorination Preserves the Atomically Flat Morphology. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 26029-26037	3.8	5
328	Controlling the reproducibility of Coulomb blockade phenomena for gold nanoparticles on an organic monolayer/silicon system. <i>Nanotechnology</i> , <b>2015</b> , 26, 065301	3.4	7
327	Competitive Coadsorption of CO <sub>2</sub> with H <sub>2</sub> O, NH <sub>3</sub> , SO <sub>2</sub> , NO, NO <sub>2</sub> , N <sub>2</sub> , O <sub>2</sub> , and CH <sub>4</sub> in M-MOF-74 (M = Mg, Co, Ni): The Role of Hydrogen Bonding. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 2203-2217	9.6	126
326	Film Structure of Epitaxial Graphene Oxide on SiC: Insight on the Relationship Between Interlayer Spacing, Water Content, and Intralayer Structure. <i>Advanced Materials Interfaces</i> , <b>2014</b> , 1, 1300106	4.6	16
325	Selectivity of metal oxide atomic layer deposition on hydrogen terminated and oxidized Si(001)-(2 $\times$ 1) surface. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2014</b> , 32, 03D112	1.3	31
324	Study of van der Waals bonding and interactions in metal organic framework materials. <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 133002	1.8	21
323	Synthesis, Characterization, and Photocatalytic Activity of Y-Doped CeO <sub>2</sub> Nanorods. <i>ACS Catalysis</i> , <b>2014</b> , 4, 577-584	13.1	237
322	Realistic metal-graphene contact structures. <i>ACS Nano</i> , <b>2014</b> , 8, 642-9	16.7	86
321	Elementary surface chemistry during CuO/Al nanolaminate-thermite synthesis: copper and oxygen deposition on aluminum (111) surfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 15086-97	9.5	35
320	Adsorbate Interactions in Metal Organic Frameworks Studied by Vibrational Spectroscopy. <i>Comments on Inorganic Chemistry</i> , <b>2014</b> , 34, 78-102	3.9	7
319	Water Reaction Mechanism in Metal Organic Frameworks with Coordinatively Unsaturated Metal Ions: MOF-74. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 6886-6895	9.6	118
318	Effect of metal/bulk-heterojunction interfacial properties on organic photovoltaic device performance. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 15288	13	10

317	Graphitic carbon nitride nano-emitters on silicon: a photoelectrochemical heterojunction composed of earth-abundant materials for enhanced evolution of hydrogen. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 12697-12702	13	15
316	Effective sensing of RDX via instant and selective detection of ketone vapors. <i>Chemical Science</i> , <b>2014</b> , 5, 4873-4877	9.4	96
315	Silicon interfacial passivation layer chemistry for high-k/InP interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 7340-5	9.5	12
314	Digermene Deposition on Si(100) and Ge(100): from Adsorption Mechanism to Epitaxial Growth. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 482-493	3.8	6
313	Role of Interfacial Aluminum Silicate and Silicon as Barrier Layers for Atomic Layer Deposition of Al <sub>2</sub> O <sub>3</sub> Films on Chemically Cleaned InP(100) Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 29164-29179	3.8	4
312	Surface Oxide Characterization and Interface Evolution in Atomic Layer Deposition of Al <sub>2</sub> O <sub>3</sub> on InP(100) Studied by in Situ Infrared Spectroscopy. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 5862-5871	3.8	10
311	Ab Initio Study of H <sub>2</sub> Associative Desorption on Ad-Dimer Reconstructed Si(001) and Ge(001)-(2x1) Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 10088-10096	3.8	4
310	Spectroscopic evaluation of out-of-plane surface vibration bands from surface functionalization of graphite oxide by fluorination. <i>Carbon</i> , <b>2014</b> , 77, 577-591	10.4	8
309	Morphology and chemical termination of HF-etched Si <sub>3</sub> N <sub>4</sub> surfaces. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 261603	3.4	9
308	Lowering the density of electronic defects on organic-functionalized Si(100) surfaces. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 241601	3.4	16
307	Efficient Directed Energy Transfer through Size-Gradient Nanocrystal Layers into Silicon Substrates. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 5002-5010	15.6	13
306	Diffusion of In <sub>0.53</sub> Ga <sub>0.47</sub> As elements through hafnium oxide during post deposition annealing. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 011601	3.4	21
305	Pattern transfer of hydrogen depassivation lithography patterns into silicon with atomically traceable placement and size control. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2014</b> , 32, 041804	1.3	14
304	Monolayer Doping via Phosphonic Acid Grafting on Silicon: Microscopic Insight from Infrared Spectroscopy and Density Functional Theory Calculations. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3471-3477	15.6	54
303	Selective, Sensitive, and Reversible Detection of Vapor-Phase High Explosives via Two-Dimensional Mapping: A New Strategy for MOF-Based Sensors. <i>Crystal Growth and Design</i> , <b>2013</b> , 13, 4204-4207	3.5	96
302	Water cluster confinement and methane adsorption in the hydrophobic cavities of a fluorinated metal-organic framework. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 12615-26	16.4	94
301	Interfacial graphene growth in the Ni/SiO <sub>2</sub> system using pulsed laser deposition. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 134102	3.4	17
300	Controlling the Atomic Layer Deposition of Titanium Dioxide on Silicon: Dependence on Surface Termination. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 20250-20259	3.8	49



299	Metal contacts on physical vapor deposited monolayer MoS <sub>2</sub> . <i>ACS Nano</i> , <b>2013</b> , 7, 11350-7	16.7	233
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