

# Matteo Chiesa

## List of Publications by Year in descending order

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Version: 2024-02-01

199  
papers

5,477  
citations

101543

36  
h-index

95266

68  
g-index

203  
all docs

203  
docs citations

203  
times ranked

6784  
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of a solar nano-grid for meeting the electricity supply shortage in developing countries (Nigeria as a case study). <i>Renewable Energy</i> , 2022, 181, 640-652.	8.9	6
2	Uncovering Contributing Factors to Interruptions in the Power Grid: An Arctic Case. <i>Energies</i> , 2022, 15, 305.	3.1	5
3	A user-friendly FIB lift-out technique to prepare plan-view TEM sample of 2D thin film materials. <i>Ultramicroscopy</i> , 2022, 235, 113496.	1.9	4
4	Rapid Colorimetric pH-Responsive Gold Nanocomposite Hydrogels for Sensing Applications. <i>Nanomaterials</i> , 2022, 12, 1486.	4.1	5
5	Ultra-Cheap Renewable Energy as an Enabling Technology for Deep Industrial Decarbonization via Capture and Utilization of Process CO <sub>2</sub> Emissions. <i>Energies</i> , 2022, 15, 5181.	3.1	2
6	Study of laser actions by bird's feathers with photonic crystals. <i>Scientific Reports</i> , 2021, 11, 2430.	3.3	5
7	Predicting Energy Demand in Semi-Remote Arctic Locations. <i>Energies</i> , 2021, 14, 798.	3.1	5
8	The CPV "Toolbox": New Approaches to Maximizing Solar Resource Utilization with Application-Oriented Concentrator Photovoltaics. <i>Energies</i> , 2021, 14, 795.	3.1	4
9	What is going on with Middle Eastern solar prices, and what does it mean for the rest of us?. <i>Progress in Photovoltaics: Research and Applications</i> , 2021, 29, 638-648.	8.1	17
10	Advances in dynamic AFM: From nanoscale energy dissipation to material properties in the nanoscale. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	10
11	Revealing the Quasi-Periodic Crystallographic Structure of Self-Assembled SnTiS <sub>3</sub> Misfit Compound. <i>Journal of Physical Chemistry C</i> , 2021, 125, 9956-9964.	3.1	4
12	A simple, semi-empirical performance modeling approach for partially transparent tracking-integrated concentrator photovoltaics. , 2021, , .		0
13	Investigating the Ubiquitous Presence of Nanometric Water Films on Surfaces. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15759-15772.	3.1	4
14	Plumbing the depths of the graphene wetting controversy. <i>CheM</i> , 2021, 7, 1409-1411.	11.7	1
15	A review of focused ion beam applications in optical fibers. <i>Nanotechnology</i> , 2021, 32, 472004.	2.6	19
16	Innovating carbon-capture biotechnologies through ecosystem-inspired solutions. <i>One Earth</i> , 2021, 4, 49-59.	6.8	21
17	Random lasers from photonic crystal wings of butterfly and moth for speckle-free imaging. <i>Optics Express</i> , 2021, 29, 2065.	3.4	28
18	Hydration Dynamics and the Future of Small-Amplitude AFM Imaging in Air. <i>Molecules</i> , 2021, 26, 7083.	3.8	2

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19	Detecting and Interpreting Faults in Vulnerable Power Grids With Machine Learning. IEEE Access, 2021, 9, 150686-150699.	4.2	10
20	Enhanced photoelectrochemical performance of atomic layer deposited Hf-doped ZnO. Surface and Coatings Technology, 2020, 385, 125352.	4.8	20
21	Tuning the Photoluminescence of Few-Layer MoS <sub>2</sub> Nanosheets by Mechanical Nanostamping for Broadband Optoelectronic Applications. ACS Applied Nano Materials, 2020, 3, 10333-10341.	5.0	8
22	Superposition of semiconductor and semi-metal properties of self-assembled 2D SnTiS <sub>3</sub> heterostructures. Npj 2D Materials and Applications, 2020, 4, .	7.9	6
23	Rethinking the role of solar energy under location specific constraints. Energy, 2020, 211, 118838.	8.8	7
24	MnO <sub>1.88</sub> /R-MnO <sub>2</sub> /Ti <sub>3</sub> C <sub>2</sub> (OH/F) <sub>x</sub> composite electrodes for high-performance pseudo-supercapacitors prepared from reduced MXenes. New Journal of Chemistry, 2020, 44, 6583-6588.	2.8	6
25	Rapid discrimination of chemically distinctive surface terminations in 2D material based heterostructures by direct van der Waals identification. Review of Scientific Instruments, 2020, 91, 023907.	1.3	7
26	Explaining doping in material research (Hf substitution in ZnO films) by directly quantifying the van der Waals force. Physical Chemistry Chemical Physics, 2020, 22, 4130-4137.	2.8	5
27	Predicting the suitability of lateritic soil type for low cost sustainable housing with image recognition and machine learning techniques. Journal of Building Engineering, 2020, 29, 101175.	3.4	4
28	Should humans work?. Telecommunications Policy, 2020, 44, 101910.	5.3	3
29	Solar concentration, solar resource utilization, and sustainability. , 2020, , ,		2
30	Utility solar prices will continue to drop all over the world even without subsidies. Nature Energy, 2019, 4, 833-834.	39.5	27
31	Direct growth of single-layer terminated vertical graphene array on germanium by plasma enhanced chemical vapor deposition. Carbon, 2019, 155, 320-325.	10.3	19
32	High-concentration photovoltaics for dual-use with agriculture. AIP Conference Proceedings, 2019, , ,	0.4	10
33	A solar concentrator based on photonic angular selectivity. AIP Conference Proceedings, 2019, , ,	0.4	1
34	Machine learning assisted quantification of graphitic surfaces exposure to defined environments. Applied Physics Letters, 2019, 114, .	3.3	10
35	Thickness-Dependent Resonant Raman and E <sub>g</sub> Photoluminescence Spectra of Indium Selenide and Indium Selenide/Graphene Heterostructures. Journal of Physical Chemistry C, 2019, 123, 15345-15353.	3.1	16
36	Optoelectronic Tunability of Hf-Doped ZnO for Photovoltaic Applications. Journal of Physical Chemistry C, 2019, 123, 15258-15266.	3.1	10

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37	Embedded parabolic fiber lens for efficient fiber-to-waveguide coupling fabricated by focused ion beam. <i>JPhys Photonics</i> , 2019, 1, 025004.	4.6	8
38	Insights into graphene wettability transparency by locally probing its surface free energy. <i>Nanoscale</i> , 2019, 11, 7944-7951.	5.6	25
39	Comparative net energy analysis of renewable electricity and carbon capture and storage. <i>Nature Energy</i> , 2019, 4, 456-465.	39.5	148
40	High-Temperature Defect-Induced Hopping Conduction in Multilayered Germanium Sulfide for Optoelectronic Applications in Harsh Environments. <i>ACS Applied Nano Materials</i> , 2019, 2, 2169-2175.	5.0	15
41	The role of financing in realizing ultra-low solar electricity prices in the Middle East. , 2019, , .		5
42	Fabrication of Near-Field Optical Fiber Probes Through Focused Ion Beam. , 2019, , .		3
43	Hybrid graphene metasurface for near-infrared absorbers. <i>Optics Express</i> , 2019, 27, 24866.	3.4	11
44	Beyond the grid: the promise of solar concentration for non-electrical energy generation. , 2019, , .		0
45	Long-Lasting Non-Hydrogenated Dark Titanium Dioxide: Medium Vacuum Anneal for Enhanced Visible Activity of Modified Multiphase Photocatalysts. <i>ChemCatChem</i> , 2018, 10, 2949-2954.	3.7	17
46	What Went Wrong with CPV?. <i>Green Energy and Technology</i> , 2018, , 1-7.	0.6	0
47	High-Efficiency Solar Cells. <i>Green Energy and Technology</i> , 2018, , 19-31.	0.6	1
48	What Comes Next for CPV?. <i>Green Energy and Technology</i> , 2018, , 63-68.	0.6	0
49	Concentrating Photovoltaics (CPV): The Path Ahead. <i>Green Energy and Technology</i> , 2018, , .	0.6	8
50	How can CPV deliver on its promise?. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	0
51	Evaluating the factors that led to low-priced solar electricity projects in the Middle East. <i>Nature Energy</i> , 2018, 3, 1109-1114.	39.5	63
52	Direct Measurement of the Magnitude of the van der Waals Interaction of Single and Multilayer Graphene. <i>Langmuir</i> , 2018, 34, 12335-12343.	3.5	33
53	Understanding the Wettability of Calcite (CaCO <sub>3</sub> ) Using Higher Spatial Resolution. <i>Energy &amp; Fuels</i> , 2018, 32, 10344-10353.	5.1	9
54	Water wettability of graphene: interplay between the interfacial water structure and the electronic structure. <i>RSC Advances</i> , 2018, 8, 16918-16926.	3.6	24

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55	Discerning the Contribution of Morphology and Chemistry in Wettability Studies. Journal of Physical Chemistry A, 2018, 122, 7768-7773.	2.5	5
56	Surface aging investigation by means of an AFM-based methodology and the evolution of conservative nanoscale interactions. Physical Chemistry Chemical Physics, 2018, 20, 19664-19671.	2.8	7
57	The evolution in graphitic surface wettability with first-principles quantum simulations: the counterintuitive role of water. Physical Chemistry Chemical Physics, 2018, 20, 22636-22644.	2.8	23
58	Relating Photoelectrochemistry and Wettability of Sputtered Cu- and N-Doped TiO <sub>2</sub> Thin Films via an Integrated Approach. Journal of Physical Chemistry C, 2018, 122, 12369-12376.	3.1	26
59	Tracking Integration for Rooftop CPV. Green Energy and Technology, 2018, , 47-61.	0.6	0
60	Spectral selectivity or nonimaging optics: Which to use for radiative cooling?. , 2018, , .		0
61	Dependence of surface aging on DNA topography investigated in attractive bimodal atomic force microscopy. Physical Chemistry Chemical Physics, 2017, 19, 10231-10236.	2.8	2
62	Direct Observation of Photoinduced <i>trans</i> → <i>cis</i> Isomerization on Azobenzene Single Crystal. Crystal Growth and Design, 2017, 17, 3306-3312.	3.0	22
63	Multifrequency AFM: from origins to convergence. Nanoscale, 2017, 9, 5038-5043.	5.6	37
64	A novel process for direct solvent regeneration via solar thermal energy for carbon capture. Renewable Energy, 2017, 104, 60-75.	8.9	23
65	Surface alteration of calcite: interpreting macroscopic observations by means of AFM. Physical Chemistry Chemical Physics, 2017, 19, 25634-25642.	2.8	5
66	Impact of short duration, high-flow H <sub>2</sub> annealing on graphene synthesis and surface morphology with high spatial resolution assessment of coverage. Carbon, 2017, 125, 318-326.	10.3	12
67	Atomic-Scale Theory of Relative Wettability of Surfaces for Enhanced Oil Recovery. , 2017, , .		1
68	Do we still care about CPV?. , 2017, , .		1
69	Future pathways for concentrator photovoltaics. , 2017, , .		0
70	Spectral management for temperature control in photovoltaic systems. , 2017, , .		0
71	Spectral splitting for thermal management in photovoltaic cells. , 2017, , .		0
72	Automatic outdoor monitoring system for photovoltaic panels. Review of Scientific Instruments, 2016, 87, 055104.	1.3	1

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73	Experimental demonstration of a dispersive spectral splitting concentrator for high efficiency photovoltaics. MRS Advances, 2016, 1, 949-955.	0.9	1
74	Rapid quantitative chemical mapping of surfaces with sub-2 nm resolution. Nanoscale, 2016, 8, 9688-9694.	5.6	23
75	Systematic Multidimensional Quantification of Nanoscale Systems From Bimodal Atomic Force Microscopy Data. ACS Nano, 2016, 10, 6265-6272.	14.6	39
76	The Mendeleevâ€Meyer force project. Nanoscale, 2016, 8, 17400-17406.	5.6	9
77	High-efficiency solar energy conversion with spectrum splitting prismatic lens (and other) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50		
78	3D-printed concentrators for tracking-integrated CPV modules. , 2016, , .		1
79	Divergent surface properties of multidimensional<i>sp</i><sup>2</sup> carbon allotropes: the effect of aging phenomena. Nanotechnology, 2016, 27, 295701.	2.6	3
80	Integrated Nano- and Macroscale Investigation of Photoinduced Hydrophilicity in TiO<sub>2</sub> Thin Films. Langmuir, 2016, 32, 11813-11818.	3.5	15
81	Tracking-integrated systems for concentrating photovoltaics. Nature Energy, 2016, 1, .	39.5	79
82	Reconstruction of height of sub-nanometer steps with bimodal atomic force microscopy. Nanotechnology, 2016, 27, 075701.	2.6	11
83	Efficiency enhancement in two-cell CIGS photovoltaic system with low-cost optical spectral splitter. Optics Express, 2016, 24, A222.	3.4	6
84	Periodicity in bimodal atomic force microscopy. Journal of Applied Physics, 2015, 118, 044905.	2.5	12
85	Multi-wall carbon nanostructured paper: characterization and potential applications definition. Materials Research Express, 2015, 2, 095601.	1.6	9
86	Detrimental Effect of Silicon Nanoparticles on P3HT:PCBM-Based OPV Devices. Macromolecular Chemistry and Physics, 2015, 216, 1155-1160.	2.2	5
87	Correlation between macro- and nano-scopic measurements of carbon nanostructured paper elastic modulus. Applied Physics Letters, 2015, 107, 031903.	3.3	1
88	Advances in anti-scale magnetic water treatment. Environmental Science: Water Research and Technology, 2015, 1, 408-425.	2.4	40
89	Transparency-switching optical element for sun tracking applications. Proceedings of SPIE, 2015, , .	0.8	0
90	Underlying Mechanism of Time Dependent Surface Properties of Calcite (CaCO<sub>3</sub>): A Baseline for Investigations of Reservoirs Wettability. Journal of Physical Chemistry C, 2015, 119, 29038-29043.	3.1	9

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91	Establishing Nanoscale Heterogeneity with Nanoscale Force Measurements. Journal of Physical Chemistry C, 2015, 119, 18267-18277.	3.1	7
92	Improved transparency switching in paraffin/PDMS composites. Journal of Materials Chemistry C, 2015, 3, 1371-1377.	5.5	25
93	Elucidation of the wettability of graphene through a multi-length-scale investigation approach. RSC Advances, 2015, 5, 39532-39538.	3.6	10
94	General Parametrization of Persisting Long-Range Nanoscale Phenomena in Force Measurements Emerging under Ambient Conditions. Journal of Physical Chemistry C, 2015, 119, 13062-13067.	3.1	2
95	Surface and Bulk Effects in Photochemical Reactions and Photomechanical Effects in Dynamic Molecular Crystals. Journal of the American Chemical Society, 2015, 137, 13866-13875.	13.7	109
96	Sun-tracking optical element realized using thermally activated transparency-switching material. Optics Express, 2015, 23, A930.	3.4	10
97	Self-tracking concentrator based on switchable transparency and rejected-ray recycling. , 2015, , .		1
98	Holistic Characterization of Carbon Nanotube Membrane for Capacitive Deionization Electrodes Application. Materials Research Society Symposia Proceedings, 2015, 1752, 125-130.	0.1	4
99	Solar repowering of PCC-retrofitted power plants; solar thermal plant dynamic modelling and control strategies. Solar Energy, 2015, 119, 507-530.	6.1	28
100	The power laws of nanoscale forces under ambient conditions. Chemical Communications, 2015, 51, 17619-17622.	4.1	10
101	Point-focus spectral splitting solar concentrator for multiple cells concentrating photovoltaic system. Journal of Optics (United Kingdom), 2015, 17, 105901.	2.2	11
102	General interpretation and theory of apparent height in dynamic atomic force microscopy. RSC Advances, 2015, 5, 80069-80075.	3.6	7
103	Effective AFM cantilever tip size: methods for <i>in-situ</i> determination. Measurement Science and Technology, 2015, 26, 015002.	2.6	24
104	Two-axes spectral splitting optical concentrator based on single plastic element. , 2014, , .		1
105	Performance of a 100 kWth Concentrated Solar Beam-Down Optical Experiment. Journal of Solar Energy Engineering, Transactions of the ASME, 2014, 136, .	1.8	34
106	Reconciling macro- with nano- carrier mobility measurements in organic photovoltaic blends. Applied Physics Letters, 2014, 104, 173905.	3.3	0
107	Time dependent wettability of graphite upon ambient exposure: The role of water adsorption. Journal of Chemical Physics, 2014, 141, 084709.	3.0	55
108	Quantifying electrostatic force contributions in electrically biased nanoscale interactions. Journal of Applied Physics, 2014, 115, .	2.5	6

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109	Thermal conductance imaging of graphene contacts. Journal of Applied Physics, 2014, 116, .	2.5	69
110	Switchable transparency optical element for reactive solar tracking. , 2014, , .		0
111	High Resolution DNA Imaging by Dynamic Atomic Force Microscopy: The Effect of the Substrate and Sample Preparation. Materials Research Society Symposia Proceedings, 2014, 1652, 1.	0.1	0
112	Nanoscale Hydrophilicity Studies of Gulf Parrotfish (<i>Scarus persicus</i>) Scales. ACS Applied Materials & Interfaces, 2014, 6, 16320-16326.	8.0	9
113	Integration of solar energy in coal-fired power plants retrofitted with carbon capture: A review. Renewable and Sustainable Energy Reviews, 2014, 38, 1029-1044.	16.4	55
114	A nanoscopic approach to studying evolution in graphene wettability. Carbon, 2014, 80, 784-792.	10.3	64
115	In silico design of solvents for carbon capture with simultaneous optimisation of operating conditions. International Journal of Greenhouse Gas Control, 2014, 30, 179-187.	4.6	7
116	Ion Exchange and DNA Molecular Dip Sticks: Studying the Nanoscale Surface Wetting of Muscovite Mica. Journal of Physical Chemistry C, 2014, 118, 4695-4701.	3.1	12
117	Effect of surface transport properties on the performance of carbon plastic electrodes for flow battery applications. Electrochimica Acta, 2014, 148, 104-110.	5.2	16
118	Experimentally validated model for atmospheric water generation using a solar assisted desiccant dehumidification system. Energy and Buildings, 2014, 77, 236-246.	6.7	55
119	Revealing Amphiphilic Nanodomains of Anti-Biofouling Polymer Coatings. ACS Applied Materials & Interfaces, 2014, 6, 4705-4712.	8.0	51
120	Probing anodic oxidation kinetics and nanoscale heterogeneity within TiO <sub>2</sub> films by Conductive Atomic Force Microscopy and combined techniques. Electrochimica Acta, 2014, 129, 203-210.	5.2	16
121	How to achieve high electrical conductivity in aligned carbon nanotube polymer composites. Carbon, 2013, 64, 150-157.	10.3	30
122	Three-Dimensional Cu(InGa)Se <sub>2</sub> Photovoltaic Cells Simulations: Optimization for Limited-Range Wavelength Applications. IEEE Journal of Photovoltaics, 2013, 3, 1106-1112.	2.5	8
123	Heterogeneous Dissipation and Size Dependencies of Dissipative Processes in Nanoscale Interactions. Langmuir, 2013, 29, 2200-2206.	3.5	11
124	Potential for solar-assisted post-combustion carbon capture in Australia. Applied Energy, 2013, 111, 175-185.	10.1	54
125	The aging of a surface and the evolution of conservative and dissipative nanoscale interactions. Journal of Chemical Physics, 2013, 139, 084708.	3.0	24
126	Minimal Invasiveness and Spectroscopy-Like Footprints for the Characterization of Heterogeneous Nanoscale Wetting in Ambient Conditions. Journal of Physical Chemistry C, 2013, 117, 20819-20825.	3.1	27



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127	Nanoscale Investigation of Photoinduced Hydrophilicity Variations in Anatase and Rutile Nanopowders. <i>Langmuir</i> , 2013, 29, 14512-14518.	3.5	14
128	Artificial neural network based model for retrieval of the direct normal, diffuse horizontal and global horizontal irradiances using SEVIRI images. <i>Solar Energy</i> , 2013, 89, 1-16.	6.1	59
129	Single cycle and transient force measurements in dynamic atomic force microscopy. <i>Nanoscale</i> , 2013, 5, 10776.	5.6	8
130	Dynamic electrostatic force microscopy technique for the study of electrical properties with improved spatial resolution. <i>Nanotechnology</i> , 2013, 24, 225703.	2.6	16
131	Numerically assisted nanoindentation analysis. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 560, 267-272.	5.6	8
132	Size Dependent Transitions in Nanoscale Dissipation. <i>Journal of Physical Chemistry C</i> , 2013, 117, 10615-10622.	3.1	28
133	Single-cycle atomic force microscope force reconstruction: resolving time-dependent interactions. <i>New Journal of Physics</i> , 2013, 15, 083034.	2.9	12
134	Point Focus Solar Spectral Splitting System for CPV Applications. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1493, 65-69.	0.1	0
135	High Efficiency Solar to Electric Energy Conversion through Spectrum Splitting and Multi-channel Full Spectrum Harvesting. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1493, 31-36.	0.1	1
136	Single element point focus spectral splitting concentrator with CIGS multiple bandgap solar cells. , 2013, , .		3
137	Optofluidic approaches to stationary tracking optical concentrator systems. , 2013, , .		4
138	Diode behavior in ultra-thin low temperature ALD grown zinc-oxide on silicon. <i>AIP Advances</i> , 2013, 3, .	1.3	38
139	Disentangling viscosity and hysteretic dissipative components in dynamic nanoscale interactions. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 012002.	2.8	12
140	Identification and quantification of the dissipative mechanisms involved in the radial permanent deformation of carbon nanotubes. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 335402.	2.8	1
141	Quantification of dissipation and deformation in ambient atomic force microscopy. <i>New Journal of Physics</i> , 2012, 14, 073044.	2.9	9
142	Single element spectral splitting solar concentrator for multiple cells CPV system. <i>Optics Express</i> , 2012, 20, 9004.	3.4	62
143	The additive effect of harmonics on conservative and dissipative interactions. <i>Journal of Applied Physics</i> , 2012, 112, 124901.	2.5	10
144	Effect of temperature on turbulent and laminar flow efficacy analysis of nanofluids. <i>Journal of Applied Physics</i> , 2012, 111, 064319.	2.5	8

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145	Dust detection over bright surfaces using high-resolution visible SEVIRI images. , 2012, , .		3
146	A method to provide rapid in situ determination of tip radius in dynamic atomic force microscopy. Review of Scientific Instruments, 2012, 83, 043707.	1.3	81
147	Effect of surface conditions and strain hardening on the passivity breakdown of 304 stainless steel. Journal of Materials Research, 2012, 27, 1580-1588.	2.6	13
148	Implications of the idea of effective tip shape on nanoindentation unloading curves: AFM measurements and FE simulation. Journal of Materials Research, 2012, 27, 126-131.	2.6	9
149	Investigating the effect of suspensions nanostructure on the thermophysical properties of nanofluids. Journal of Applied Physics, 2012, 112, .	2.5	11
150	Water-mediated height artifacts in dynamic atomic force microscopy. Physical Chemistry Chemical Physics, 2012, 14, 16080.	2.8	21
151	Local characterization of austenite and ferrite phases in duplex stainless steel using MFM and nanoindentation. Journal of Materials Research, 2012, 27, 1573-1579.	2.6	61
152	Quantifying dissipative contributions in nanoscale interactions. Nanoscale, 2012, 4, 792-800.	5.6	27
153	Spatial horizons in amplitude and frequency modulation atomic force microscopy. Nanoscale, 2012, 4, 2463.	5.6	7
154	Nanoscale Capillary Interactions in Dynamic Atomic Force Microscopy. Journal of Physical Chemistry C, 2012, 116, 7757-7766.	3.1	42
155	Investigation of Nanoscale Interactions by Means of Subharmonic Excitation. Journal of Physical Chemistry Letters, 2012, 3, 2125-2129.	4.6	9
156	Hydrophilicity of a Single DNA Molecule. Journal of Physical Chemistry C, 2012, 116, 2807-2818.	3.1	20
157	Energy dissipation in the presence of sub-harmonic excitation in dynamic atomic force microscopy. Europhysics Letters, 2012, 99, 56002.	2.0	8
158	Conductive scanning probe microscopy of nanostructured Bi <sub>2</sub> Te <sub>3</sub> . Nanoscale, 2012, 4, 600-606.	5.6	9
159	Densification modeling of fused silica under nanoindentation. Journal of Non-Crystalline Solids, 2012, 358, 392-398.	3.1	58
160	Enhanced electrical properties of vertically aligned carbon nanotube-epoxy nanocomposites with high packing density. Nanoscale Research Letters, 2012, 7, 630.	5.7	26
161	Characterization of multi-walled carbon nanotube-polymer nanocomposites by scanning spreading resistance microscopy. Nanotechnology, 2012, 23, 405704.	2.6	16
162	Modeling crack propagation for advanced 4-point bending testing of metal-dielectric thin film stacks. Engineering Fracture Mechanics, 2012, 96, 490-499.	4.3	3

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163	Nanoscale Thermal Analysis of Multiphase Polymer Nanocomposites. Journal of Physical Chemistry C, 2012, 116, 8849-8856.	3.1	14
164	Thermal Conductivity Behavior of Yttria Nanofluids. , 2012, , .		0
165	Photothermal phase shift interferometry: an approach for nonlinear absorption measurements. Journal of Optics (United Kingdom), 2012, 14, 015204.	2.2	4
166	The effects of adsorbed water layers on the apparent height of nanostructures in ambient amplitude modulation atomic force microscopy. Journal of Chemical Physics, 2012, 137, 044201.	3.0	16
167	Energy dissipation distributions and dissipative atomic processes in amplitude modulation atomic force microscopy. Nanotechnology, 2012, 23, 125401.	2.6	12
168	Solar-assisted Post-combustion Carbon Capture feasibility study. Applied Energy, 2012, 92, 668-676.	10.1	100
169	A model for improved solar irradiation measurement at low flux. Solar Energy, 2012, 86, 837-844.	6.1	6
170	Modeling and optimization of solar thermoelectric generators for terrestrial applications. Solar Energy, 2012, 86, 1338-1350.	6.1	129
171	Assessment and recalibration of the Heliosat-2 method in global horizontal irradiance modeling over the desert environment of the UAE. Solar Energy, 2012, 86, 1816-1825.	6.1	34
172	Influence of Nanoindenter Tip Radius on the Estimation of the Elastic Modulus. Materials Research Society Symposia Proceedings, 2011, 1297, 53.	0.1	3
173	Rheological Study of Y2O3 Nanofluids. , 2011, , .		0
174	Measurement of the two-photon absorption cross section by means of femtosecond thermal lensing. Applied Optics, 2011, 50, 3240.	2.1	8
175	High-performance flat-panel solar thermoelectric generators with high thermal concentration. Nature Materials, 2011, 10, 532-538.	27.5	987
176	Morphology dependent electrical transport behavior in gold nanostructures. Thin Solid Films, 2011, 520, 656-661.	1.8	13
177	Non-ohmic transport behavior in ultra-thin gold films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 840-845.	3.5	7
178	Evaluation of using thermoelectric coolers in a dehumidification system to generate freshwater from ambient air. Chemical Engineering Science, 2011, 66, 2491-2501.	3.8	88
179	A cooling change-point model of community-aggregate electrical load. Energy and Buildings, 2011, 43, 28-37.	6.7	31
180	How localized are energy dissipation processes in nanoscale interactions?. Nanotechnology, 2011, 22, 345401.	2.6	28

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181	Measuring the true height of water films on surfaces. <i>Nanotechnology</i> , 2011, 22, 465705.	2.6	54
182	Subharmonic excitation in amplitude modulation atomic force microscopy in the presence of adsorbed water layers. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	19
183	The effect of ion sputtering of silicon substrates on the catalyst morphology and growth of carbon nanotube arrays. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2010, 268, 568-572.	1.4	1
184	Systematic comprehensive techno-economic assessment of solar cooling technologies using location-specific climate data. <i>Applied Energy</i> , 2010, 87, 3766-3778.	10.1	62
185	Characterization of thin metal films via frequency-domain thermoreflectance. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	99
186	Solar assisted method for recovery of bitumen from oil sand. <i>Applied Energy</i> , 2009, 86, 1437-1441.	10.1	38
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