

# De-Quan Yang

## List of Publications by Year in descending order

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94  
papers

3,742  
citations

159358

30  
h-index

128067

60  
g-index

95  
all docs

95  
docs citations

95  
times ranked

5471  
citing authors

#	ARTICLE	IF	CITATIONS
1	The surface analytical characterization of carbon fibers functionalized by H <sub>2</sub> SO <sub>4</sub> /HNO <sub>3</sub> treatment. Carbon, 2008, 46, 196-205.	5.4	494
2	Surface Diffusion and Coalescence of Mobile Metal Nanoparticles. Journal of Physical Chemistry B, 2005, 109, 9703-9711.	1.2	343
3	Spectroscopic Evidence for $\pi$ - $\pi$ Interaction between Poly(diallyl dimethylammonium) Chloride and Multiwalled Carbon Nanotubes. Journal of Physical Chemistry B, 2005, 109, 4481-4484.	1.2	265
4	Template- and Surfactant-free Room Temperature Synthesis of Self-Assembled 3D Pt Nanoflowers from Single-Crystal Nanowires. Advanced Materials, 2008, 20, 571-574.	11.1	232
5	Carbon 1s X-ray Photoemission Line Shape Analysis of Highly Oriented Pyrolytic Graphite: The Influence of Structural Damage on Peak Asymmetry. Langmuir, 2006, 22, 860-862.	1.6	145
6	XPS Demonstration of $\pi$ - $\pi$ Interaction between Benzyl Mercaptan and Multiwalled Carbon Nanotubes and Their Use in the Adhesion of Pt Nanoparticles. Chemistry of Materials, 2006, 18, 5033-5038.	3.2	138
7	Functionalization of Multiwalled Carbon Nanotubes by Mild Aqueous Sonication. Journal of Physical Chemistry B, 2005, 109, 7788-7794.	1.2	129
8	$s$ - $p$ Hybridization in highly oriented pyrolytic graphite and its change on surface modification, as studied by X-ray photoelectron and Raman spectroscopies. Surface Science, 2002, 504, 125-137.	0.8	111
9	Synthesis and Characterization of Platinum Nanowire-Carbon Nanotube Heterostructures. Chemistry of Materials, 2007, 19, 6376-6378.	3.2	100
10	X-ray Photoelectron Spectroscopic Analysis of Pt Nanoparticles on Highly Oriented Pyrolytic Graphite, Using Symmetric Component Line Shapes. Journal of Physical Chemistry C, 2007, 111, 565-570.	1.5	90
11	Room temperature oxidation kinetics of Si nanoparticles in air, determined by x-ray photoelectron spectroscopy. Journal of Applied Physics, 2005, 97, 024303.	1.1	87
12	Strongly Enhanced Interaction between Evaporated Pt Nanoparticles and Functionalized Multiwalled Carbon Nanotubes via Plasma Surface Modifications: Effects of Physical and Chemical Defects. Journal of Physical Chemistry C, 2008, 112, 4075-4082.	1.5	79
13	Electrophoretic separation of aniline derivatives using fused silica capillaries coated with acid treated single-walled carbon nanotubes. Journal of Chromatography A, 2005, 1074, 187-194.	1.8	70
14	Controlled Chemical Functionalization of Multiwalled Carbon Nanotubes by Kiloelectronvolt Argon Ion Treatment and Air Exposure. Langmuir, 2005, 21, 8539-8545.	1.6	70
15	Repelling hot water from superhydrophobic surfaces based on carbon nanotubes. Journal of Materials Chemistry A, 2015, 3, 16953-16960.	5.2	70
16	How to repel hot water from a superhydrophobic surface?. Journal of Materials Chemistry A, 2014, 2, 10639-10646.	5.2	62
17	Ar <sup>+</sup> -induced surface defects on HOPG and their effect on the nucleation, coalescence and growth of evaporated copper. Surface Science, 2002, 516, 43-55.	0.8	61
18	Initial- and final-state effects on metal cluster/substrate interactions, as determined by XPS: copper clusters on Dow Cyclotene and highly oriented pyrolytic graphite. Applied Surface Science, 2002, 195, 187-195.	3.1	60

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19	Durable superhydrophobic PTFE films through the introduction of micro- and nanostructured pores. <i>Applied Surface Science</i> , 2015, 339, 151-157.	3.1	60
20	Evidence of the Interaction of Evaporated Pt Nanoparticles with Various Treated Surfaces of Highly Oriented Pyrolytic Graphite. <i>Journal of Physical Chemistry B</i> , 2006, 110, 8348-8356.	1.2	55
21	A Facile Route for the Self-Organized High-Density Decoration of Pt Nanoparticles on Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2008, 112, 11717-11721.	1.5	46
22	Platinum Nanoparticle Interaction with Chemically Modified Highly Oriented Pyrolytic Graphite Surfaces. <i>Chemistry of Materials</i> , 2006, 18, 1811-1816.	3.2	42
23	The estimation of the average dimensions of deposited clusters from XPS emission intensity ratios. <i>Applied Surface Science</i> , 2001, 173, 134-139.	3.1	39
24	Oxidation, Deformation, and Destruction of Carbon Nanotubes in Aqueous Ceric Sulfate. <i>Journal of Physical Chemistry B</i> , 2005, 109, 1400-1407.	1.2	38
25	Improved adhesion of Ag NPs to the polyethylene terephthalate surface via atmospheric plasma treatment and surface functionalization. <i>Applied Surface Science</i> , 2017, 411, 411-418.	3.1	38
26	Interaction of Evaporated Nickel Nanoparticles with Highly Oriented Pyrolytic Graphite: Back-bonding to Surface Defects, as Studied by X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2005, 109, 19329-19334.	1.2	37
27	Characterization and Oxidation of Fe Nanoparticles Deposited onto Highly Oriented Pyrolytic Graphite, Using X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6418-6425.	1.5	37
28	An environment-friendly fabrication of superhydrophobic surfaces on steel and magnesium alloy. <i>Materials Letters</i> , 2016, 171, 297-299.	1.3	37
29	A study of the mechanical and chemical durability of Ultra-Ever Dry Superhydrophobic coating on low carbon steel surface. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 497, 16-27.	2.3	34
30	Preparation and characterization of nanostructured silver thin films deposited by radio frequency magnetron sputtering. <i>Thin Solid Films</i> , 2000, 375, 300-303.	0.8	33
31	Nitrogen plasma treatment of the Dow Cyclotene 3022 surface and its reaction with evaporated copper. <i>Applied Surface Science</i> , 2001, 177, 85-95.	3.1	31
32	Sizes correction on AFM images of nanometer spherical particles. <i>Journal of Materials Science</i> , 2001, 36, 263-267.	1.7	30
33	Unlubricated friction and wear behaviour of zirconia ceramics. <i>Wear</i> , 1998, 215, 232-236.	1.5	29
34	A facile method to prepare mechanically durable super slippery polytetrafluoroethylene coatings. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 556, 99-105.	2.3	28
35	Formation of a Porous Platinum Nanoparticle Froth for Electrochemical Applications, Produced without Templates, Surfactants, or Stabilizers. <i>Chemistry of Materials</i> , 2008, 20, 4677-4681.	3.2	27
36	Coalescence kinetics of copper clusters on highly oriented pyrolytic graphite and Dow Cyclotene, as determined by x-ray photoelectron spectroscopy. <i>Journal of Applied Physics</i> , 2001, 90, 4768-4771.	1.1	25

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37	Structure and Morphology of Co Nanoparticles Deposited onto Highly Oriented Pyrolytic Graphite. <i>Journal of Physical Chemistry C</i> , 2007, 111, 17200-17205.	1.5	25
38	Interfacial reaction between evaporated copper and Dow Cyclotene 3022. <i>Applied Surface Science</i> , 2000, 165, 116-126.	3.1	24
39	Preparation and structural characterization of nanostructured iron oxide thin films. <i>Applied Surface Science</i> , 1999, 147, 39-43.	3.1	23
40	Excimer laser manipulation and patterning of gold nanoparticles on the SiO <sub>2</sub> /Si surface. <i>Journal of Applied Physics</i> , 2004, 95, 5023-5026.	1.1	23
41	The surface structure of Dow Cyclotene 3022, as determined by photoacoustic FTIR, confocal Raman and photoelectron spectroscopies. <i>Applied Surface Science</i> , 2000, 165, 15-22.	3.1	22
42	The applicability of angle-resolved XPS to the characterization of clusters on surfaces. <i>Surface Science</i> , 2003, 536, 139-144.	0.8	22
43	Argon ion treatment of the Dow Cyclotene 3022 surface and its effect on the adhesion of evaporated copper. <i>Applied Surface Science</i> , 2001, 173, 30-39.	3.1	21
44	Ag NP catalysis of Cu ions in the preparation of AgCu NPs and the mechanism of their enhanced antibacterial efficacy. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 632, 127831.	2.3	21
45	A spectroscopic study of CN <sub>x</sub> formation by the keV N <sub>2</sub> <sup>+</sup> irradiation of highly oriented pyrolytic graphite surfaces. <i>Surface Science</i> , 2003, 531, 185-198.	0.8	19
46	Stabilization of platinum nanoparticles on graphene by non-invasive functionalization. <i>Carbon</i> , 2009, 47, 2233-2238.	5.4	16
47	Optical breakdown processing: Influence of the ambient gas on the properties of the nanostructured Si-based layers formed. <i>Journal of Applied Physics</i> , 2004, 95, 5722-5728.	1.1	14
48	Preparation of large-scale, durable, superhydrophobic PTFE films using rough glass templates. <i>Surface and Interface Analysis</i> , 2017, 49, 1422-1430.	0.8	14
49	The surface modification of nanoporous SiO <sub>x</sub> thin films with a monofunctional organosilane. <i>Applied Surface Science</i> , 2005, 252, 1197-1201.	3.1	13
50	The enhancement of the adhesion of copper layers to Dow Cyclotene 3022 through metal sputtering. <i>Applied Surface Science</i> , 2001, 180, 200-208.	3.1	12
51	Photoacoustic Fourier transform infrared spectroscopy of nanoporous SiO <sub>x</sub> /Si thin films with varying porosities. <i>Journal of Applied Physics</i> , 2005, 98, 114310.	1.1	12
52	The manipulation of Cu cluster dimensions on highly oriented pyrolytic graphite surfaces by low energy ion beam irradiation. <i>Surface Science</i> , 2003, 536, 67-74.	0.8	11
53	Study of a hydrogen-bombardment process for molecular cross-linking within thin films. <i>Journal of Chemical Physics</i> , 2011, 134, 074704.	1.2	11
54	Preparation of anti-reflection glass surface with self-cleaning and anti-dust by ammonium hydroxide hydrothermal method. <i>Materials Express</i> , 2015, 5, 280-290.	0.2	11

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55	Photoluminescence of highly porous nanostructured Si-based thin films deposited by pulsed laser ablation. <i>Journal of Applied Physics</i> , 2005, 98, 024310.	1.1	10
56	Local surface cleaning and cluster assembly using contact mode atomic force microscopy. <i>Applied Surface Science</i> , 2003, 210, 158-164.	3.1	9
57	A facile route to prepare colorless Ag-Cu nanoparticle dispersions with elevated antibacterial effects. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 626, 127116.	2.3	9
58	Leachability and Anti-Mold Efficiency of Nanosilver on Poplar Wood Surface. <i>Polymers</i> , 2022, 14, 884.	2.0	9
59	Voltammetric determination of hydrazine based on catalytic reaction in the presence of 4-hydroxy-2,2,6,6-tetramethyl-piperdinyloxy (TEMPOL) radical. <i>Electroanalysis</i> , 1997, 9, 1429-1431.	1.5	8
60	X-ray photoelectron spectroscopy of nickel dithiolene complex Langmuir-Blodgett films. <i>Applied Surface Science</i> , 1999, 148, 196-204.	3.1	8
61	Cu cluster adhesion enhancement on the modified Dow Cyclotene surface through low energy N <sub>2</sub> <sup>+</sup> beam irradiation at grazing angles. <i>Applied Surface Science</i> , 2003, 207, 1-5.	3.1	8
62	The early stages of silicon surface damage induced by pulsed CO <sub>2</sub> laser radiation: an AFM study. <i>Applied Surface Science</i> , 2004, 222, 365-373.	3.1	8
63	The quantitative correlation of nanoscopic and macroscopic measurements of adhesion: copper clusters on a low-permittivity polymer. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 7097-7100.	0.7	7
64	Study of the environment effect on the properties of BDN-SA Langmuir-Blodgett films. <i>Thin Solid Films</i> , 1998, 320, 316-319.	0.8	6
65	Structural studies of functional organized molecular thin films using angle-resolved X-ray photoelectron spectroscopy. <i>Applied Surface Science</i> , 1999, 144-145, 451-455.	3.1	6
66	Accurate Assembly and Size Control of Cu Nanoparticles into Nanowires by Contact Atomic Force Microscope-Based Nanopositioning. <i>Journal of Physical Chemistry C</i> , 2007, 111, 10105-10109.	1.5	5
67	Destabilization of PVA-stabilized Ag NPs: color changes at low aqueous concentrations, induced by aggregation and coalescence. <i>Materials Research Express</i> , 2020, , .	0.8	5
68	Changes in alloy surface composition induced by low energy ion bombardment. <i>Vacuum</i> , 1992, 43, 231-234.	1.6	4
69	Study on nucleation and growth of Ag nanoparticles prepared by radio-frequency sputtering on highly oriented pyrolytic graphite and amorphous carbon. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2000, 18, 1156.	1.6	4
70	The surface modification of Dow Cyclotene by low energy N <sub>2</sub> <sup>+</sup> beams and its effect on the adhesion of evaporated Cu films. <i>Applied Surface Science</i> , 2002, 195, 202-213.	3.1	4
71	The creation of Au nanoscale surface patterns by the low energy Ar <sup>+</sup> beam irradiation of Au clusters evaporated onto a SiO <sub>2</sub> /Si surface. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 80, 575-579.	1.1	4
72	Room temperature air oxidation of nanostructured Si thin films with varying porosities as studied by x-ray photoelectron spectroscopy. <i>Journal of Applied Physics</i> , 2006, 99, 084315.	1.1	4

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73	Improving the Mechanical Durability of Superhydrophobic Coating by Deposition onto a Mesh Structure. <i>Materials Research Express</i> , 2018, 5, 065521.	0.8	4
74	Dependence of Secondary Ion Mass Spectrometry Relative Sensitivity Factor on Matrix. <i>Chinese Physics Letters</i> , 1998, 15, 697-699.	1.3	3
75	<title>N <sub>2</sub> H <sub>4</sub> gas detection using Langmuir-Blodgett films of a dithiolene complex on chemiresistor sensors</title>. , 1998, 3175, 82.		3
76	Formation of densely populated SiO <sub>x</sub> microtree-like structures on the Si (100) surface using excimer laser irradiation in air. , 2004, 5578, 652.		3
77	An Innovative Approach to Synthesize Highly-Ordered TiO <sub>2</sub> Nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 1079-1083.	0.9	3
78	Large-scale synthesis of 3D sphere-like hierarchical Ni(OH) <sub>2</sub> nanofibers for high-performance electrochemical supercapacitors. <i>Materials Research Express</i> , 2015, 2, 095008.	0.8	3
79	Aqueous synthesis and growth of morphologically controllable, hierarchical Ni(OH) <sub>2</sub> nanostructures. <i>Materials Research Express</i> , 2015, 2, 075011.	0.8	3
80	Synthesis of amorphous SiO <sub>2</sub> nanowires by one-step low temperature hydrothermal process. <i>Materials Research Express</i> , 2019, 6, 115202.	0.8	3
81	Dynamic behaviours and drying processes of water droplets impacting on superhydrophilic surfaces. <i>Surface Engineering</i> , 2021, 37, 1301-1307.	1.1	3
82	AFM/XPS Analysis of the Growth and Architecture of Oriented Molecular Monolayer by Spin Cast Process and Its Cross-Linking Induced by Hyperthermal Hydrogen. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 6233.	1.3	2
83	Microcrystalline Domains of Monolayer and Multilayer Dithiolene Langmuir-Blodgett Films Studied by AFM. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 203, R7-R8.	0.7	1
84	Attenuation Lengths of Photoelectrons in BDN-SA Langmuir-Blodgett Films. <i>Molecular Crystals and Liquid Crystals</i> , 1999, 337, 65-68.	0.3	1
85	Title is missing!. <i>Journal of Materials Science</i> , 1999, 34, 5569-5574.	1.7	1
86	Interface configuration and metal adhesion in Au-polycarbonate bilayer structure: Influence of 27Al <sup>+</sup> ion mixing. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 848-855.	0.9	1
87	Electrical properties of bis(4-diethyannodithiobenzil)nickel and stearyl alcohol mixed Langmuir-Blodgett films. <i>Thin Solid Films</i> , 2001, 385, 239-245.	0.8	1
88	Porous nanostructured layers on germanium produced by laser optical breakdown processing. , 2003, , .		1
89	Microscale chemical and electrostatic surface patterning of Dow Cyclotene by N <sub>2</sub> plasma. <i>Applied Surface Science</i> , 2005, 242, 419-427.	3.1	1
90	Core/Shell Formation of Gold Nanoparticles Induced on Exposure to N,N-Dimethylformamide: Chemical and Morphological Changes. <i>Journal of Physical Chemistry C</i> , 2007, 111, 14320-14326.	1.5	1

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91	Microcrystalline domains of monolayer and multilayer BDN-SA Langmuir-Blodgett films. <i>Supramolecular Science</i> , 1998, 5, 615-617.	0.7	0
92	Preparation and conductivity of dithiolene complex Langmuir-Blodgett films. <i>Journal of Materials Science: Materials in Electronics</i> , 1999, 10, 557-561.	1.1	0
93	The unexpected formation of Au <sup>+</sup> Si <sup>-</sup> by the resonance neutralization of Ar <sup>+</sup> during the low energy bombardment of Au nanoparticles on c-Si. <i>Applied Surface Science</i> , 2009, 255, 6870-6874.	3.1	0
94	A New Approach of Tailoring Wetting Properties of TiO <sub>2</sub> Nanotubular Surfaces. <i>Advanced Science Letters</i> , 2012, 18, 158-163.	0.2	0