Dameng Liu

List of Publications by Year
in descending order

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66 papers	2,336 citations	236925 25 h-index	214800 47 g-index
66 all docs	66 docs citations	66 times ranked	4231 citing authors

#	Article	IF	Citations
1	Sulfur vacancies in monolayer MoS2 and its electrical contacts. Applied Physics Letters, 2013, 103, .	3.3	327
2	Chalcogen vacancies in monolayer transition metal dichalcogenides and Fermi level pinning at contacts. Applied Physics Letters, 2015, 106, .	3.3	151
3	3D Behavior of Schottky Barriers of 2D Transition-Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2015, 7, 25709-25715.	8.0	134
4	Superlubricity of a graphene/MoS₂ heterostructure: a combined experimental and DFT study. Nanoscale, 2017, 9, 10846-10853.	5.6	133
5	Solvatochromic Effect on the Photoluminescence of MoS₂ Monolayers. Small, 2013, 9, 1312-1315.	10.0	131
6	Oxygen vacancy levels and electron transport in Al2O3. Applied Physics Letters, 2010, 96, 032905.	3.3	119
7	Oxygen vacancies in high-k oxides. Microelectronic Engineering, 2007, 84, 2028-2031.	2.4	82
8	Fabrication of in situ carbon fiber/aluminum composites via friction stir processing: Evaluation of microstructural, mechanical and tribological behaviors. Composites Part B: Engineering, 2018, 139, 97-105.	12.0	81
9	Au-Modified Monolayer MoS₂ Sensor for DNA Detection. Journal of Physical Chemistry C, 2016, 120, 11204-11209.	3.1	67
10	Ultrasensitive SERS detection of rhodamine 6G and p-nitrophenol based on electrochemically roughened nano-Au film. Talanta, 2020, 210, 120631.	5.5	62
11	Magnetic proximity effect in graphene coupled to a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BiFe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> nanoplate. Physical Review B, 2017, 95, .	3.2	57
12	Electrochemical functionalization of 316 stainless steel with polyaniline-graphene oxide: Corrosion resistance study. Materials Chemistry and Physics, 2017, 198, 90-98.	4.0	54
13	Lateral graphene pâ€“n junctions formed by the graphene/MoS₂hybrid interface. Nanoscale, 2015, 7, 11611-11619.	5.6	53
14	Passivation of oxygen vacancy states and suppression of Fermi pinning in HfO2 by La addition. Applied Physics Letters, 2009, 94, .	3.3	51
15	Direct Visualization of Exciton Transport in Defective Fewâ€Layer WS₂ by Ultrafast Microscopy. Advanced Materials, 2020, 32, e1906540.	21.0	50
16	Thickness dependent friction on few-layer MoS₂, WS₂, and WSe₂. Nanotechnology, 2017, 28, 245703.	2.6	41
17	Oxygen vacancy levels and interfaces of Al2O3. Microelectronic Engineering, 2009, 86, 1668-1671.	2.4	40
18	Neutral and defect-induced exciton annihilation in defective monolayer WS₂. Nanoscale, 2019, 11, 7913-7920.	5.6	36

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19	Corrosion resistance and micro-tribological properties of nickel hydroxide-graphene oxide composite coating. Diamond and Related Materials, 2017, 76, 150-156.	3.9	35
20	Step-by-Step Fracture of Two-Layer Stacked Graphene Membranes. ACS Nano, 2014, 8, 10246-10251.	14.6	34
21	Growth of high quality, high density single-walled carbon nanotube forests on copper foils. Carbon, 2016, 98, 624-632.	10.3	31
22	Exciton Radiative Recombination Dynamics and Nonradiative Energy Transfer in Two-Dimensional Transition-Metal Dichalcogenides. Journal of Physical Chemistry C, 2019, 123, 10087-10093.	3.1	31
23	Raman spectroscopy as a potential diagnostic tool to analyse biochemical alterations in lung cancer. Analyst, The, 2020, 145, 385-392.	3.5	30
24	p -type Fermi level pinning at a Si:Al2O3 model interface. Applied Physics Letters, 2008, 93, .	3.3	28
25	First-principles calculations of the electronic structure and defects of Al2O3. Journal of Applied Physics, 2013, 114, .	2.5	28
26	Electronic structure and defects of high dielectric constant gate oxide La2Hf2O7. Applied Physics Letters, 2007, 90, 062901.	3.3	26
27	A new opportunity for the emerging tellurium semiconductor: making resistive switching devices. Nature Communications, 2021, 12, 6081.	12.8	25
28	Insertion of an ultrathin Al₂O₃interfacial layer for Schottky barrier height reduction in WS₂field-effect transistors. Nanoscale, 2019, 11, 4811-4821.	5.6	24
29	Electronic and atomic structure of metal-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>HfO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:ms Physical Review B, 2010, 81, .	3.2	23
30	Accurate diagnosis of lung tissues for 2D Raman spectrogram by deep learning based on short-time Fourier transform. Analytica Chimica Acta, 2021, 1179, 338821.	5.4	23
31	Asymmetric Modulation on Exchange Field in a Graphene/BiFeO3 Heterostructure by External Magnetic Field. Nano Letters, 2018, 18, 2435-2441.	9.1	22
32	Enhancing the interlayer adhesive force in twisted multilayer MoS₂by thermal annealing treatment. Nanotechnology, 2015, 26, 405708.	2.6	21
33	Layer-Number-Dependent Exciton Recombination Behaviors of MoS₂ Determined by Fluorescence-Lifetime Imaging Microscopy. Journal of Physical Chemistry C, 2018, 122, 18651-18658.	3.1	21
34	Highly accurate diagnosis of lung adenocarcinoma and squamous cell carcinoma tissues by deep learning. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 265, 120400.	3.9	19
35	High-performance SERS substrate based on perovskite quantum dotâ€“graphene/nano-Au composites for ultrasensitive detection of rhodamine 6G and p-nitrophenol. Journal of Materials Chemistry C, 2021, 9, 9011-9020.	5.5	18
36	High-Precision Intelligent Cancer Diagnosis Method: 2D Raman Figures Combined with Deep Learning. Analytical Chemistry, 2022, 94, 6491-6501.	6.5	18

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37	Controllable Interlayer Charge and Energy Transfer in Perovskite Quantum Dots/ Transition Metal Dichalcogenide Heterostructures. Advanced Materials Interfaces, 2019, 6, 1901263.	3.7	17
38	Reduced Binding Energy and Layer-Dependent Exciton Dynamics in Monolayer and Multilayer WS₂. ACS Nano, 2019, 13, 14416-14425.	14.6	17
39	Interlayer interaction on twisted interface in incommensurate stacking MoS2: A Raman spectroscopy study. Journal of Colloid and Interface Science, 2019, 538, 159-164.	9.4	15
40	Influence of elastic property on the friction between atomic force microscope tips and 2D materials. Nanotechnology, 2020, 31, 285710.	2.6	14
41	Self-Poisoning by C₂ Products in CO₂ Photoreduction Using a Phosphorus-Doped Carbon Nitride with Nitrogen Vacancies. ACS Sustainable Chemistry and Engineering, 2022, 10, 5758-5769.	6.7	14
42	Te-induced modulation of the Moâ•HfO2 interface effective work function. Applied Physics Letters, 2008, 92, .	3.3	13
43	Layer-dependent signatures for exciton dynamics in monolayer and multilayer WSe2 revealed by fluorescence lifetime imaging measurement. Nano Research, 2020, 13, 661-666.	10.4	12
44	Flower-like and hollow sphere-like ZnO assisted by microorganisms and their UV absorption and photo catalytic performance. Journal of Materials Science: Materials in Electronics, 2013, 24, 36-43.	2.2	11
45	Strain-Gradient Modulated Exciton Emission in Bent ZnO Wires Probed by Cathodoluminescence. ACS Nano, 2016, 10, 11469-11474.	14.6	11
46	Defect-Type-Dependent Carrier Lifetimes in Monolayer WS₂ Films. Journal of Physical Chemistry C, 2022, 126, 4929-4938.	3.1	10
47	Microstructure and mechanical properties of TiAlSiN nano-composite coatings deposited by ion beam assisted deposition. Science China Technological Sciences, 2015, 58, 1682-1688.	4.0	9
48	Band Structure, Band Offsets, and Intrinsic Defect Properties of Few-Layer Arsenic and Antimony. Journal of Physical Chemistry C, 2020, 124, 7441-7448.	3.1	9
49	Improvement on thermal stability of TiAlSiN coatings deposited by IBAD. Surface Engineering, 2018, 34, 504-510.	2.2	8
50	Exploring interlayer interaction of SnSe2 by low-frequency Raman spectroscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 105, 7-12.	2.7	8
51	Tunable Exciton Radiative Recombination Lifetime in Twisted Bilayer Molybdenum Disulfide. Journal of Physical Chemistry C, 2020, 124, 21123-21128.	3.1	8
52	Rapid thin-layer WS2 detection based on monochromatic illumination photographs. Nano Research, 2021, 14, 840-845.	10.4	8
53	In Situâ€Formed Ultralow Wear Tribofilms Induced by Poly(Acrylic Acid)â€coâ€MXeneâ€Modified Polymerâ€Like Carbon Films. Advanced Engineering Materials, 2022, 24, .	3.5	7
54	Fourier transform infrared and Ramanâ€based biochemical profiling of different grades of pure foetalâ€type hepatoblastoma. Journal of Biophotonics, 2019, 12, e201800304.	2.3	4

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55	Twist-angle-controlled neutral exciton annihilation in WS₂ homostructures. Nanoscale, 2022, 14, 5537-5544.	5.6	4
56	Laser etching of groove structures with micro-optical fiber-enhanced irradiation. Nanoscale Research Letters, 2012, 7, 318.	5.7	3
57	FDTD simulation on laser-induced enhancement of electric field in the near-field apertureless probe system. Laser Physics Letters, 2012, 9, 511-518.	1.4	2
58	Microscopical Quantification of Ionâ€Induced Nanodefects in Monolayer MoS₂ Based on Differential Reflectance. Advanced Materials Interfaces, 2022, 9, 2101612.	3.7	2
59	Imaging of Defect-Accelerated Energy Transfer in MoS2/hBN/WS2 Heterostructures. ACS Applied Materials & Interfaces, 2022, , .	8.0	1
60	Inspection of Line Defects in Transition Metal Dichalcogenides Using a Microscopic Hyperspectral Imaging Technique. Journal of Physical Chemistry Letters, 2022, 13, 2226-2230.	4.6	1
61	Visualizing ultrafast defectâ€controlled interlayer electronâ€phonon coupling in van der Waals heterostructures. Advanced Materials, 2022, , 2106955.	21.0	1
62	Friction-Induced Clustered Rearrangement at a PbS Quantum Dot Nanocoating via Long-Term Lubrication under an Atmosphere Environment. Journal of Physical Chemistry Letters, 2022, 13, 6342-6348.	4.6	1
63	Laser wavelength effects on (Ti, Al, Si)N in near-field laser nanostructuring by micron optical fiber enhanced irradiation. Science China Technological Sciences, 2013, 56, 3012-3016.	4.0	0
64	Laser induced twin-groove surface texturing based on optical fiber modulation. Laser Physics, 2013, 23, 056005.	1.2	0
65	Fabrication of micro grooves on silicon by micro optical fiber enhanced pulse laser irradiation. Journal of Micromechanics and Microengineering, 2015, 25, 075021.	2.6	0
66	Energy dissipation through phonon and electron behaviors of superlubricity in 2D materials. , 2021, , 145-166.		0