

# Dameng Liu

## List of Publications by Year in descending order

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66  
papers

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citations

236833

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214721

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all docs

66  
docs citations

66  
times ranked

4231  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sulfur vacancies in monolayer MoS <sub>2</sub> and its electrical contacts. Applied Physics Letters, 2013, 103, .	1.5	327
2	Chalcogen vacancies in monolayer transition metal dichalcogenides and Fermi level pinning at contacts. Applied Physics Letters, 2015, 106, .	1.5	151
3	3D Behavior of Schottky Barriers of 2D Transition-Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2015, 7, 25709-25715.	4.0	134
4	Superlubricity of a graphene/MoS <sub>2</sub> heterostructure: a combined experimental and DFT study. Nanoscale, 2017, 9, 10846-10853.	2.8	133
5	Solvatochromic Effect on the Photoluminescence of MoS <sub>2</sub> Monolayers. Small, 2013, 9, 1312-1315.	5.2	131
6	Oxygen vacancy levels and electron transport in Al <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2010, 96, 032905.	1.5	119
7	Oxygen vacancies in high-k oxides. Microelectronic Engineering, 2007, 84, 2028-2031.	1.1	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.	5.9	81
9	Au-Modified Monolayer MoS <sub>2</sub> Sensor for DNA Detection. Journal of Physical Chemistry C, 2016, 120, 11204-11209.	1.5	67
10	Ultrasensitive SERS detection of rhodamine 6G and p-nitrophenol based on electrochemically roughened nano-Au film. Talanta, 2020, 210, 120631.	2.9	62
11	Magnetic proximity effect in graphene coupled to a $\text{BiFeO}_3$ nanoplate. Physical Review B, 2017, 95, .	1.1	57
12	Electrochemical functionalization of 316 stainless steel with polyaniline-graphene oxide: Corrosion resistance study. Materials Chemistry and Physics, 2017, 198, 90-98.	2.0	54
13	Lateral graphene p-n junctions formed by the graphene/MoS <sub>2</sub> hybrid interface. Nanoscale, 2015, 7, 11611-11619.	2.8	53
14	Passivation of oxygen vacancy states and suppression of Fermi pinning in HfO <sub>2</sub> by La addition. Applied Physics Letters, 2009, 94, .	1.5	51
15	Direct Visualization of Exciton Transport in Defective Few-Layer WS <sub>2</sub> by Ultrafast Microscopy. Advanced Materials, 2020, 32, e1906540.	11.1	50
16	Thickness dependent friction on few-layer MoS <sub>2</sub> , WS <sub>2</sub> , and WSe <sub>2</sub> . Nanotechnology, 2017, 28, 245703.	1.3	41
17	Oxygen vacancy levels and interfaces of Al <sub>2</sub> O <sub>3</sub> . Microelectronic Engineering, 2009, 86, 1668-1671.	1.1	40
18	Neutral and defect-induced exciton annihilation in defective monolayer WS <sub>2</sub> . Nanoscale, 2019, 11, 7913-7920.	2.8	36

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19	Corrosion resistance and micro-tribological properties of nickel hydroxide-graphene oxide composite coating. <i>Diamond and Related Materials</i> , 2017, 76, 150-156.	1.8	35
20	Step-by-Step Fracture of Two-Layer Stacked Graphene Membranes. <i>ACS Nano</i> , 2014, 8, 10246-10251.	7.3	34
21	Growth of high quality, high density single-walled carbon nanotube forests on copper foils. <i>Carbon</i> , 2016, 98, 624-632.	5.4	31
22	Exciton Radiative Recombination Dynamics and Nonradiative Energy Transfer in Two-Dimensional Transition-Metal Dichalcogenides. <i>Journal of Physical Chemistry C</i> , 2019, 123, 10087-10093.	1.5	31
23	Raman spectroscopy as a potential diagnostic tool to analyse biochemical alterations in lung cancer. <i>Analyst</i> , 2020, 145, 385-392.	1.7	30
24	p-type Fermi level pinning at a Si:Al <sub>2</sub> O <sub>3</sub> model interface. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	28
25	First-principles calculations of the electronic structure and defects of Al <sub>2</sub> O <sub>3</sub> . <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	28
26	Electronic structure and defects of high dielectric constant gate oxide La <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> . <i>Applied Physics Letters</i> , 2007, 90, 062901.	1.5	26
27	A new opportunity for the emerging tellurium semiconductor: making resistive switching devices. <i>Nature Communications</i> , 2021, 12, 6081.	5.8	25
28	Insertion of an ultrathin Al <sub>2</sub> O <sub>3</sub> interfacial layer for Schottky barrier height reduction in WS <sub>2</sub> field-effect transistors. <i>Nanoscale</i> , 2019, 11, 4811-4821.	2.8	24
29	Electronic and atomic structure of metal- $\text{HfO}_2$ . <i>Physical Review B</i> , 2010, 81, .	1.1	23
30	Accurate diagnosis of lung tissues for 2D Raman spectrogram by deep learning based on short-time Fourier transform. <i>Analytica Chimica Acta</i> , 2021, 1179, 338821.	2.6	23
31	Asymmetric Modulation on Exchange Field in a Graphene/BiFeO <sub>3</sub> Heterostructure by External Magnetic Field. <i>Nano Letters</i> , 2018, 18, 2435-2441.	4.5	22
32	Enhancing the interlayer adhesive force in twisted multilayer MoS <sub>2</sub> by thermal annealing treatment. <i>Nanotechnology</i> , 2015, 26, 405708.	1.3	21
33	Layer-Number-Dependent Exciton Recombination Behaviors of MoS <sub>2</sub> Determined by Fluorescence-Lifetime Imaging Microscopy. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18651-18658.	1.5	21
34	Highly accurate diagnosis of lung adenocarcinoma and squamous cell carcinoma tissues by deep learning. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 265, 120400.	2.0	19
35	High-performance SERS substrate based on perovskite quantum dot-graphene/nano-Au composites for ultrasensitive detection of rhodamine 6G and p-nitrophenol. <i>Journal of Materials Chemistry C</i> , 2021, 9, 9011-9020.	2.7	18
36	High-Precision Intelligent Cancer Diagnosis Method: 2D Raman Figures Combined with Deep Learning. <i>Analytical Chemistry</i> , 2022, 94, 6491-6501.	3.2	18

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37	Controllable Interlayer Charge and Energy Transfer in Perovskite Quantum Dots/ Transition Metal Dichalcogenide Heterostructures. <i>Advanced Materials Interfaces</i> , 2019, 6, 1901263.	1.9	17
38	Reduced Binding Energy and Layer-Dependent Exciton Dynamics in Monolayer and Multilayer WS <sub>2</sub> . <i>ACS Nano</i> , 2019, 13, 14416-14425.	7.3	17
39	Interlayer interaction on twisted interface in incommensurate stacking MoS <sub>2</sub> : A Raman spectroscopy study. <i>Journal of Colloid and Interface Science</i> , 2019, 538, 159-164.	5.0	15
40	Influence of elastic property on the friction between atomic force microscope tips and 2D materials. <i>Nanotechnology</i> , 2020, 31, 285710.	1.3	14
41	Self-Poisoning by C <sub>2</sub> Products in CO <sub>2</sub> Photoreduction Using a Phosphorus-Doped Carbon Nitride with Nitrogen Vacancies. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 5758-5769.	3.2	14
42	Te-induced modulation of the Mo•HfO <sub>2</sub> interface effective work function. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	13
43	Layer-dependent signatures for exciton dynamics in monolayer and multilayer WSe <sub>2</sub> revealed by fluorescence lifetime imaging measurement. <i>Nano Research</i> , 2020, 13, 661-666.	5.8	12
44	Flower-like and hollow sphere-like ZnO assisted by microorganisms and their UV absorption and photo catalytic performance. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 36-43.	1.1	11
45	Strain-Gradient Modulated Exciton Emission in Bent ZnO Wires Probed by Cathodoluminescence. <i>ACS Nano</i> , 2016, 10, 11469-11474.	7.3	11
46	Defect-Type-Dependent Carrier Lifetimes in Monolayer WS <sub>2</sub> Films. <i>Journal of Physical Chemistry C</i> , 2022, 126, 4929-4938.	1.5	10
47	Microstructure and mechanical properties of TiAlSiN nano-composite coatings deposited by ion beam assisted deposition. <i>Science China Technological Sciences</i> , 2015, 58, 1682-1688.	2.0	9
48	Band Structure, Band Offsets, and Intrinsic Defect Properties of Few-Layer Arsenic and Antimony. <i>Journal of Physical Chemistry C</i> , 2020, 124, 7441-7448.	1.5	9
49	Improvement on thermal stability of TiAlSiN coatings deposited by IBAD. <i>Surface Engineering</i> , 2018, 34, 504-510.	1.1	8
50	Exploring interlayer interaction of SnSe <sub>2</sub> by low-frequency Raman spectroscopy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 105, 7-12.	1.3	8
51	Tunable Exciton Radiative Recombination Lifetime in Twisted Bilayer Molybdenum Disulfide. <i>Journal of Physical Chemistry C</i> , 2020, 124, 21123-21128.	1.5	8
52	Rapid thin-layer WS <sub>2</sub> detection based on monochromatic illumination photographs. <i>Nano Research</i> , 2021, 14, 840-845.	5.8	8
53	In Situ Formed Ultralow Wear Tribofilms Induced by Poly(Acrylic Acid) MXene Modified Polymer-Like Carbon Films. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	7
54	Fourier transform infrared and Raman based biochemical profiling of different grades of pure foetal type hepatoblastoma. <i>Journal of Biophotonics</i> , 2019, 12, e201800304.	1.1	4

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55	Twist-angle-controlled neutral exciton annihilation in WS <sub>2</sub> homostructures. <i>Nanoscale</i> , 2022, 14, 5537-5544.	2.8	4
56	Laser etching of groove structures with micro-optical fiber-enhanced irradiation. <i>Nanoscale Research Letters</i> , 2012, 7, 318.	3.1	3
57	FDTD simulation on laser-induced enhancement of electric field in the near-field apertureless probe system. <i>Laser Physics Letters</i> , 2012, 9, 511-518.	0.6	2
58	Microscopical Quantification of Ion-Induced Nanodefects in Monolayer MoS <sub>2</sub> Based on Differential Reflectance. <i>Advanced Materials Interfaces</i> , 2022, 9, 2101612.	1.9	2
59	Imaging of Defect-Accelerated Energy Transfer in MoS <sub>2</sub> /hBN/WS <sub>2</sub> Heterostructures. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, , .	4.0	1
60	Inspection of Line Defects in Transition Metal Dichalcogenides Using a Microscopic Hyperspectral Imaging Technique. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2226-2230.	2.1	1
61	Visualizing ultrafast defect-controlled interlayer electron-phonon coupling in van der Waals heterostructures. <i>Advanced Materials</i> , 2022, , 2106955.	11.1	1
62	Friction-Induced Clustered Rearrangement at a PbS Quantum Dot Nanocoating via Long-Term Lubrication under an Atmosphere Environment. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 6342-6348.	2.1	1
63	Laser wavelength effects on (Ti, Al, Si)N in near-field laser nanostructuring by micron optical fiber enhanced irradiation. <i>Science China Technological Sciences</i> , 2013, 56, 3012-3016.	2.0	0
64	Laser induced twin-groove surface texturing based on optical fiber modulation. <i>Laser Physics</i> , 2013, 23, 056005.	0.6	0
65	Fabrication of micro grooves on silicon by micro optical fiber enhanced pulse laser irradiation. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 075021.	1.5	0
66	Energy dissipation through phonon and electron behaviors of superlubricity in 2D materials. , 2021, , 145-166.		0