

# Yupeng Zhang

## List of Publications by Year in descending order

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50276

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docs citations

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15441  
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#	ARTICLE	IF	CITATIONS
1	Raman Spectroscopy: A New Approach to Measure the Percentage of Anatase TiO <sub>2</sub> Exposed (001) Facets. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7515-7519.	3.1	672
2	In-plane anisotropic and ultra-low-loss polaritons in a natural van der Waals crystal. <i>Nature</i> , 2018, 562, 557-562.	27.8	506
3	Characterization of Oxygen Vacancy Associates within Hydrogenated TiO <sub>2</sub> : A Positron Annihilation Study. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22619-22624.	3.1	487
4	Emerging two-dimensional monoelemental materials (Xenes) for biomedical applications. <i>Chemical Society Reviews</i> , 2019, 48, 2891-2912.	38.1	482
5	Ultrasensitive detection of miRNA with an antimonene-based surface plasmon resonance sensor. <i>Nature Communications</i> , 2019, 10, 28.	12.8	475
6	Scalable Production of a Few-Layer MoS <sub>2</sub> /WS <sub>2</sub> Vertical Heterojunction Array and Its Application for Photodetectors. <i>ACS Nano</i> , 2016, 10, 573-580.	14.6	362
7	Two-Dimensional CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite: Synthesis and Optoelectronic Application. <i>ACS Nano</i> , 2016, 10, 3536-3542.	14.6	359
8	TiO <sub>2</sub> /graphene composite from thermal reaction of graphene oxide and its photocatalytic activity in visible light. <i>Journal of Materials Science</i> , 2011, 46, 2622-2626.	3.7	333
9	Phase Segregation Enhanced Ion Movement in Efficient Inorganic CsPbI <sub>2</sub> Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700946.	19.5	318
10	Photonics and optoelectronics using nano-structured hybrid perovskite media and their optical cavities. <i>Physics Reports</i> , 2019, 795, 1-51.	25.6	303
11	Two-Dimensional CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Nanosheets for Ultrafast Pulsed Fiber Lasers. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 12759-12765.	8.0	296
12	Photonics and optoelectronics of two-dimensional materials beyond graphene. <i>Nanotechnology</i> , 2016, 27, 462001.	2.6	259
13	Synthesis, properties, and optical applications of low-dimensional perovskites. <i>Chemical Communications</i> , 2016, 52, 13637-13655.	4.1	252
14	Hybrid Graphene-Perovskite Phototransistors with Ultrahigh Responsivity and Gain. <i>Advanced Optical Materials</i> , 2015, 3, 1389-1396.	7.3	240
15	Room temperature in-plane ferroelectricity in van der Waals In <sub>2</sub> Se <sub>3</sub> . <i>Science Advances</i> , 2018, 4, eaar7720.	10.3	224
16	Short-Chain Ligand-Passivated Stable In-CsPbI <sub>3</sub> Quantum Dot for All-Inorganic Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1900991.	14.9	216
17	Synthesis and Transfer of Large-Area Monolayer WS <sub>2</sub> Crystals: Moving Toward the Recyclable Use of Sapphire Substrates. <i>ACS Nano</i> , 2015, 9, 6178-6187.	14.6	200
18	Near-Infrared Photodetectors Based on MoTe <sub>2</sub> /Graphene Heterostructure with High Responsivity and Flexibility. <i>Small</i> , 2017, 13, 1700268.	10.0	200

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19	Highly Efficient and Air-Stable Infrared Photodetector Based on 2D Layered Graphene/Black Phosphorus Heterostructure. ACS Applied Materials & Interfaces, 2017, 9, 36137-36145.	8.0	185
20	Photonics and Optoelectronics of 2D Metal-Halide Perovskites. Small, 2018, 14, e1800682.	10.0	168
21	Measurements of mechanical properties and number of layers of graphene from nano-indentation. Diamond and Related Materials, 2012, 24, 1-5.	3.9	149
22	Strong Depletion in Hybrid Perovskite p-n Junctions Induced by Local Electronic Doping. Advanced Materials, 2018, 30, e1705792.	21.0	141
23	Facile Synthesis of Carbon Nanosphere/NiCo <sub>2</sub> O <sub>4</sub> Core-shell Sub-microspheres for High Performance Supercapacitor. Scientific Reports, 2015, 5, 12903.	3.3	115
24	Present Perspectives of Advanced Characterization Techniques in TiO <sub>2</sub> -Based Photocatalysts. ACS Applied Materials & Interfaces, 2017, 9, 23265-23286.	8.0	112
25	Ultrathin GeSe Nanosheets: From Systematic Synthesis to Studies of Carrier Dynamics and Applications for a High-Performance UV-Vis Photodetector. ACS Applied Materials & Interfaces, 2019, 11, 4278-4287.	8.0	105
26	Preparation of porous micro-nano-structure NiO/ZnO heterojunction and its photocatalytic property. RSC Advances, 2014, 4, 3090-3095.	3.6	97
27	Strain Relaxation of Monolayer WS <sub>2</sub> on Plastic Substrate. Advanced Functional Materials, 2016, 26, 8707-8714.	14.9	97
28	Solution-Processed Extremely Efficient Multicolor Perovskite Light-Emitting Diodes Utilizing Doped Electron Transport Layer. Advanced Functional Materials, 2017, 27, 1606874.	14.9	96
29	Photocatalytic and degradation mechanisms of anatase TiO <sub>2</sub> : a HRTEM study. Catalysis Science and Technology, 2011, 1, 273.	4.1	89
30	High quality graphene sheets from graphene oxide by hot-pressing. Carbon, 2013, 54, 143-148.	10.3	82
31	Atomically thin lateral p-n junction photodetector with large effective detection area. 2D Materials, 2016, 3, 041001.	4.4	78
32	Band Structure Engineering in 2D Materials for Optoelectronic Applications. Advanced Materials Technologies, 2018, 3, 1800072.	5.8	78
33	Synthesis of nitrogen doped graphene from graphene oxide within an ammonia flame for high performance supercapacitors. RSC Advances, 2014, 4, 55394-55399.	3.6	77
34	Wavelength-tunable waveguides based on polycrystalline organic-inorganic perovskite microwires. Nanoscale, 2016, 8, 6258-6264.	5.6	76
35	Direct Observation of 2D Electrostatics and Ohmic Contacts in Template-Grown Graphene/WS <sub>2</sub> Heterostructures. ACS Nano, 2017, 11, 2785-2793.	14.6	74
36	Engineering Nanostructured Bi <sub>2</sub> WO <sub>6</sub> /TiO <sub>2</sub> Toward Effective Utilization of Natural Light in Photocatalysis. Journal of the American Ceramic Society, 2011, 94, 4157-4161.	3.8	68

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37	Reversible Structural Swellâ€“Shrink and Recoverable Optical Properties in Hybrid Inorganicâ€“Organic Perovskite. ACS Nano, 2016, 10, 7031-7038.	14.6	68
38	The Roadmap of Grapheneâ€“Based Optical Biochemical Sensors. Advanced Functional Materials, 2017, 27, 1603918.	14.9	68
39	Dipole-field-assisted charge extraction in metal-perovskite-metal back-contact solar cells. Nature Communications, 2017, 8, 613.	12.8	66
40	Directing nucleation and growth kinetics in solution-processed hybrid perovskite thin-films. Science China Materials, 2017, 60, 617-628.	6.3	64
41	Flexible Broadband Graphene Photodetectors Enhanced by Plasmonic Cu <sub>3</sub> âˆ“P Colloidal Nanocrystals. Small, 2017, 13, 1701881.	10.0	63
42	Surface doping of La ions into ZnO nanocrystals to lower the optimal working temperature for HCHO sensing properties. Physical Chemistry Chemical Physics, 2015, 17, 27437-27445.	2.8	61
43	Ferroelectric-Driven Exciton and Trion Modulation in Monolayer Molybdenum and Tungsten Diselenides. ACS Nano, 2019, 13, 5335-5343.	14.6	61
44	Controlled Growth of Monocrystalline Organoâ€“Lead Halide Perovskite and Its Application in Photonic Devices. Angewandte Chemie - International Edition, 2017, 56, 12486-12491.	13.8	54
45	Engineering ultrafast charge transfer in a bismuthene/perovskite nanohybrid. Nanoscale, 2019, 11, 2637-2643.	5.6	51
46	Structure optimization of perovskite quantum dot light-emitting diodes. Nanoscale, 2019, 11, 5021-5029.	5.6	48
47	Direct synthesis of high concentration N-doped coiled carbon nanofibers from amine flames and its electrochemical properties. Journal of Power Sources, 2011, 196, 7868-7873.	7.8	45
48	Efficient Excitation of Multiple Plasmonic Modes on Three-Dimensional Graphene: An Unexplored Dimension. ACS Photonics, 2016, 3, 1986-1992.	6.6	42
49	Role of Surface Recombination in Halide Perovskite Nanoplatelets. ACS Applied Materials & Interfaces, 2018, 10, 31586-31593.	8.0	41
50	Degradation of Two-Dimensional CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite and CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /Graphene Heterostructure. ACS Applied Materials & Interfaces, 2018, 10, 24258-24265.	8.0	40
51	Robust Aboveâ€“Roomâ€“Temperature Ferromagnetism in Fewâ€“Layer Antimonene Triggered by Nonmagnetic Adatoms. Advanced Functional Materials, 2019, 29, 1808746.	14.9	38
52	The production of nitrogen-doped graphene from mixed amine plus ethanol flames. Thin Solid Films, 2012, 520, 6850-6855.	1.8	36
53	<sc>N</sc>-<sc>Ni</sc> Codoped Anatase <sc>TiO</sc> Nanocrystals with Exposed {001} Facets Through Twoâ€“Step Hydrothermal Route. Journal of the American Ceramic Society, 2012, 95, 2951-2956.	3.8	35
54	The Lightâ€“Induced Fieldâ€“Effect Solar Cell Concept â€“ Perovskite Nanoparticle Coating Introduces Polarization Enhancing Silicon Cell Efficiency. Advanced Materials, 2017, 29, 1606370.	21.0	35

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55	Edge-riched graphene nanoribbon for high capacity electrode materials. <i>Electrochimica Acta</i> , 2017, 250, 84-90.	5.2	34
56	Large-scale Production of Bismuth Chalcogenide and Graphene Heterostructure and Its Application for Flexible Broadband Photodetector. <i>Advanced Electronic Materials</i> , 2016, 2, 1600077.	5.1	33
57	CNTs/TiO <sub>2</sub> composites and its electrochemical properties after UV light irradiation. <i>Progress in Natural Science: Materials International</i> , 2013, 23, 164-169.	4.4	32
58	A novel route to ZnO/TiO <sub>2</sub> heterojunction composite fibers. <i>Journal of Materials Research</i> , 2013, 28, 507-512.	2.6	32
59	Mechanical property enhancement of PVDF/graphene composite based on a high-quality graphene. <i>Journal of Materials Science</i> , 2014, 49, 8311-8316.	3.7	32
60	Near-ultraviolet light-emitting diodes realized from n-ZnO nanorod/p-GaN direct-bonding heterostructures. <i>Journal of Luminescence</i> , 2013, 137, 116-120.	3.1	30
61	Flexible photodetectors based on reticulated SWNT/perovskite quantum dot heterostructures with ultrahigh durability. <i>Nanoscale</i> , 2019, 11, 8020-8026.	5.6	30
62	Reliable Synthesis of Large-area Monolayer WS <sub>2</sub> Single Crystals, Films, and Heterostructures with Extraordinary Photoluminescence Induced by Water Intercalation. <i>Advanced Optical Materials</i> , 2018, 6, 1701347.	7.3	28
63	Infrared Nanoimaging Reveals the Surface Metallic Plasmons in Topological Insulator. <i>ACS Photonics</i> , 2017, 4, 3055-3062.	6.6	27
64	Overcoming the Electroluminescence Efficiency Limitations in Quantum-Dot Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2019, 7, 1900695.	7.3	26
65	Superior Magnetoresistance Performance of Hybrid Graphene Foam/Metal Sulfide Nanocrystal Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 19397-19403.	8.0	26
66	Graphene Heterostructure Integrated Optical Fiber Bragg Grating for Light Motion Tracking and Ultrabroadband Photodetection from 400 nm to 10.768 Åm. <i>Advanced Functional Materials</i> , 2019, 29, 1807274.	14.9	26
67	Ytterbium-doped fiber laser passively mode locked by evanescent field interaction with CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> perovskite saturable absorber. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 375106.	2.8	25
68	Improved and orange emission from an n-ZnO/p-Si heterojunction light emitting device with NiO as the intermediate layer. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	24
69	Preparation of ZnO/graphene heterojunction via high temperature and its photocatalytic property. <i>Journal of Materials Science</i> , 2014, 49, 1854-1860.	3.7	23
70	Preparation of a ZnO/TiO <sub>2</sub> vertical-nanoneedle-on-film heterojunction and its photocatalytic properties. <i>RSC Advances</i> , 2014, 4, 18186.	3.6	23
71	Monolayer graphene on nanostructured Ag for enhancement of surface-enhanced Raman scattering stable platform. <i>Nanotechnology</i> , 2015, 26, 125603.	2.6	23
72	A high energy output nanogenerator based on reduced graphene oxide. <i>Nanoscale</i> , 2015, 7, 18147-18151.	5.6	23

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73	Enhanced Performance of nano-Bi <sub>2</sub> WO <sub>6</sub> -Graphene as Pseudocapacitor Electrodes by Charge Transfer Channel. <i>Scientific Reports</i> , 2015, 5, 8624.	3.3	22
74	Synthesis of Ultrathin Composition Graded Doped Lateral WSe <sub>2</sub> /WS <sub>2</sub> Heterostructures. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 34204-34212.	8.0	22
75	Design of high-performance memristor cell using W-implanted SiO <sub>2</sub> films. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	21
76	Effect of Interlayer Coupling on Ultrafast Charge Transfer from Semiconducting Molecules to Mono- and Bilayer Graphene. <i>Physical Review Applied</i> , 2015, 4, .	3.8	19
77	Unusual electroluminescence from n-ZnO@i-MgO core-shell nanowire color-tunable light-emitting diode at reverse bias. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 9302-9308.	2.8	18
78	Enhanced quantum efficiency from a mosaic of two dimensional MoS <sub>2</sub> formed onto aminosilane functionalised substrates. <i>Nanoscale</i> , 2016, 8, 12258-12266.	5.6	18
79	Rational design of an ITO/CuS nanosheet network composite film as a counter electrode for flexible dye sensitized solar cells. <i>Journal of Materials Chemistry C</i> , 2016, 4, 8130-8134.	5.5	17
80	Strain induced chemical potential difference between monolayer graphene sheets. <i>Nanoscale</i> , 2013, 5, 2616.	5.6	16
81	Lattice distortion mechanism study of TiO <sub>2</sub> nanoparticles during photocatalysis degradation and reactivation. <i>AIP Advances</i> , 2015, 5, .	1.3	13
82	In situ synthesis of CdS decorated titanate nanosheets with highly efficient visible-light-induced photoactivity. <i>Applied Surface Science</i> , 2014, 305, 459-465.	6.1	10
83	Controlled synthesis of graphene nanoribbons for field effect transistors. <i>Journal of Alloys and Compounds</i> , 2015, 649, 933-938.	5.5	7
84	High-voltage electric-field-induced growth of aligned "cow-nipple-like" submicro-nano carbon isomeric structure via chemical vapor deposition. <i>Journal of Applied Physics</i> , 2012, 112, 114310.	2.5	5
85	Probing the dynamic structural changes of DNA using ultrafast laser pulse in graphene-based optofluidic device. <i>Informa Mater</i> , 2021, 3, 316-326.	17.3	4
86	Photocatalytic mechanism of high-activity anatase TiO <sub>2</sub> with exposed (001) facets from molecular-atomic scale: HRTEM and Raman studies. <i>Frontiers of Materials Science</i> , 2017, 11, 358-365.	2.2	2
87	Light-Emitting Diodes: Solution-Processed Extremely Efficient Multicolor Perovskite Light-Emitting Diodes Utilizing Doped Electron Transport Layer ( <i>Adv. Funct. Mater.</i> 21/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	14.9	0