

Tie Wang

List of Publications by Year in descending order

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110
papers

6,383
citations

46918

47
h-index

69108

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113
all docs

113
docs citations

113
times ranked

9895
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-Assembled Colloidal Superparticles from Nanorods. <i>Science</i> , 2012, 338, 358-363.	6.0	332
2	Hierarchical Structures of Bone and Bioinspired Bone Tissue Engineering. <i>Small</i> , 2016, 12, 4611-4632.	5.2	307
3	Selective Surface Enhanced Raman Scattering for Quantitative Detection of Lung Cancer Biomarkers in Superparticle@MOF Structure. <i>Advanced Materials</i> , 2018, 30, 1702275.	11.1	301
4	Colloidal superparticles from nanoparticle assembly. <i>Chemical Society Reviews</i> , 2013, 42, 2804-2823.	18.7	230
5	In Situ Synthesis and Characterization of Multiwalled Carbon Nanotube/Au Nanoparticle Composite Materials. <i>Journal of Physical Chemistry B</i> , 2006, 110, 853-857.	1.2	184
6	Surface-Enhanced Raman Scattering of 4-Aminothiophenol Self-Assembled Monolayers in Sandwich Structure with Nanoparticle Shape Dependence: Off-Surface Plasmon Resonance Condition. <i>Journal of Physical Chemistry C</i> , 2007, 111, 6962-6969.	1.5	172
7	Deviatoric Stress Driven Formation of Large Single-Crystal PbS Nanosheet from Nanoparticles and in Situ Monitoring of Oriented Attachment. <i>Journal of the American Chemical Society</i> , 2011, 133, 14484-14487.	6.6	168
8	Shape-Controlled Synthesis of High-Quality Cu ₇ S ₄ Nanocrystals for Efficient Light-Induced Water Evaporation. <i>Small</i> , 2016, 12, 5320-5328.	5.2	145
9	Understanding the Selective Detection of Fe ³⁺ Based on Graphene Quantum Dots as Fluorescent Probes: The <i>K_{sp}</i> of a Metal Hydroxide-Assisted Mechanism. <i>Analytical Chemistry</i> , 2017, 89, 12054-12058.	3.2	143
10	Nanomaterial-based gas sensors used for breath diagnosis. <i>Journal of Materials Chemistry B</i> , 2020, 8, 3231-3248.	2.9	142
11	Fabrication, Characterization, and Application in SERS of Self-Assembled Polyelectrolyte~Gold Nanorod Multilayered Films. <i>Journal of Physical Chemistry B</i> , 2005, 109, 19385-19389.	1.2	139
12	Detection of volatile organic compounds (VOCs) from exhaled breath as noninvasive methods for cancer diagnosis. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 2759-2780.	1.9	134
13	Hierarchically Staggered Nanostructure of Mineralized Collagen as a Bone~Grafting Scaffold. <i>Advanced Materials</i> , 2016, 28, 8740-8748.	11.1	129
14	Surface-Functionalization-Dependent Optical Properties of II~VI Semiconductor Nanocrystals. <i>Journal of the American Chemical Society</i> , 2011, 133, 17504-17512.	6.6	121
15	Shape-Controlled Synthesis of Colloidal Superparticles from Nanocubes. <i>Journal of the American Chemical Society</i> , 2012, 134, 18225-18228.	6.6	121
16	Interparticle Forces Underlying Nanoparticle Self~Assemblies. <i>Small</i> , 2015, 11, 5984-6008.	5.2	119
17	A general route to transform normal hydrophilic cloths into superhydrophobic surfaces. <i>Chemical Communications</i> , 2007, , 1849.	2.2	114
18	Surfactantless Synthesis of Multiple Shapes of Gold Nanostructures and Their Shape-Dependent SERS Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2006, 110, 16930-16936.	1.2	106

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19	Fluorescent Conjugated Polymer-Stabilized Gold Nanoparticles for Sensitive and Selective Detection of Cysteine. <i>Journal of Physical Chemistry C</i> , 2007, 111, 13414-13417.	1.5	102
20	Ultrasensitive Surface-Enhanced Raman Scattering Sensor of Gaseous Aldehydes as Biomarkers of Lung Cancer on Dendritic Ag Nanocrystals. <i>Analytical Chemistry</i> , 2017, 89, 1416-1420.	3.2	95
21	General Strategy to Optimize Gas Evolution Reaction via Assembled Striped-Pattern Superlattices. <i>Journal of the American Chemical Society</i> , 2020, 142, 1857-1863.	6.6	93
22	Dual-Peak Electrogenerated Chemiluminescence of Carbon Dots for Iron Ions Detection. <i>Analytical Chemistry</i> , 2014, 86, 5620-5623.	3.2	90
23	Coordination mode engineering in stacked-nanosheet metal-organic frameworks to enhance catalytic reactivity and structural robustness. <i>Nature Communications</i> , 2019, 10, 2779.	5.8	89
24	Well-ordered end-to-end linkage of gold nanorods. <i>Nanotechnology</i> , 2005, 16, 2164-2169.	1.3	85
25	Excitation-Intensity-Dependent Color-Tunable Dual Emissions from Manganese-Doped CdS/ZnS Core/Shell Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 10132-10135.	7.2	82
26	Gas-Bubble Effects on the Formation of Colloidal Iron Oxide Nanocrystals. <i>Journal of the American Chemical Society</i> , 2011, 133, 12664-12674.	6.6	79
27	A new view for nanoparticle assemblies: from crystalline to binary cooperative complementarity. <i>Chemical Society Reviews</i> , 2017, 46, 1483-1509.	18.7	77
28	Direct electrochemistry of microperoxidase 11 using carbon nanotube modified electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2005, 578, 121-127.	1.9	74
29	Understanding the Role of Metal-Organic Frameworks in Surface-Enhanced Raman Scattering Application. <i>Small</i> , 2020, 16, e2004802.	5.2	73
30	Multilayer structured carbon nanotubes/poly-L-lysine/laccase composite cathode for glucose/O ₂ biofuel cell. <i>Electrochemistry Communications</i> , 2008, 10, 1012-1015.	2.3	72
31	Detection of Exhaled Volatile Organic Compounds Improved by Hollow Nanocages of Layered Double Hydroxide on Ag Nanowires. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16523-16527.	7.2	72
32	Advancements of molecularly imprinted polymers in the food safety field. <i>Analyst</i> , The, 2016, 141, 3540-3553.	1.7	70
33	Movable Hollow Nanoparticles as Reactive Oxygen Scavengers. <i>CheM</i> , 2019, 5, 2378-2387.	5.8	68
34	A biofuel cell with enhanced performance by multilayer biocatalyst immobilized on highly ordered macroporous electrode. <i>Biosensors and Bioelectronics</i> , 2008, 24, 329-333.	5.3	66
35	Effect of structure: A new insight into nanoparticle assemblies from inanimate to animate. <i>Science Advances</i> , 2020, 6, eaba1321.	4.7	65
36	Nanoparticle-based artificial RNA silencing machinery for antiviral therapy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 12387-12392.	3.3	63

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37	Pressure Processing of Nanocube Assemblies Toward Harvesting of a Metastable PbS Phase. <i>Advanced Materials</i> , 2015, 27, 4544-4549.	11.1	61
38	Large-Scale, Long-Range-Ordered Patterning of Nanocrystals via Capillary-Bridge Manipulation. <i>Advanced Materials</i> , 2017, 29, 1703143.	11.1	59
39	Noncovalent Functionalization of Multiwalled Carbon Nanotubes: Application in Hybrid Nanostructures. <i>Journal of Physical Chemistry B</i> , 2006, 110, 6631-6636.	1.2	57
40	Signal-Off Electrogenerated Chemiluminescence Biosensing Platform Based on the Quenching Effect between Ferrocene and Ru(bpy) ₃ ²⁺ -Functionalized Metal-Organic Frameworks for the Detection of Methylated RNA. <i>Analytical Chemistry</i> , 2019, 91, 11840-11847.	3.2	57
41	Ruthenium@N-doped graphite carbon derived from carbon foam for efficient hydrogen evolution reaction. <i>Chemical Communications</i> , 2019, 55, 965-968.	2.2	56
42	A stable lead halide perovskite nanocrystals protected by PMMA. <i>Science China Materials</i> , 2018, 61, 363-370.	3.5	55
43	A General Route to Prepare One- and Three-Dimensional Carbon Nanotube/Metal Nanoparticle Composite Nanostructures. <i>Langmuir</i> , 2007, 23, 6352-6357.	1.6	53
44	Bacterial capture efficiency in fluid bloodstream improved by bendable nanowires. <i>Nature Communications</i> , 2018, 9, 444.	5.8	53
45	Effective Extraction of Domoic Acid from Seafood Based on Postsynthetic-Modified Magnetic Zeolite Imidazolate Framework-8 Particles. <i>Analytical Chemistry</i> , 2019, 91, 2418-2424.	3.2	53
46	Silver nanoparticles as matrix for MALDI FTICR MS profiling and imaging of diverse lipids in brain. <i>Talanta</i> , 2018, 179, 624-631.	2.9	51
47	Detection of Exhaled Volatile Organic Compounds Improved by Hollow Nanocages of Layered Double Hydroxide on Ag Nanowires. <i>Angewandte Chemie</i> , 2019, 131, 16675-16679.	1.6	51
48	Deformable Metal-Organic Framework Nanosheets for Heterogeneous Catalytic Reactions. <i>Journal of the American Chemical Society</i> , 2020, 142, 9408-9414.	6.6	50
49	A Renewable SERS Substrate Prepared by Cyclic Depositing and Stripping of Silver Shells on Gold Nanoparticle Microtubes. <i>Small</i> , 2008, 4, 781-786.	5.2	48
50	Internanofiber Spacing Adjustment in the Bundled Nanofibers for Sensitive Fluorescence Detection of Volatile Organic Compounds. <i>Analytical Chemistry</i> , 2017, 89, 3814-3818.	3.2	47
51	From Atoms to Lives: The Evolution of Nanoparticle Assemblies. <i>Advanced Functional Materials</i> , 2019, 29, 1807658.	7.8	44
52	Seamless Signal Transduction from Three-Dimensional Cultured Cells to a Superoxide Anions Biosensor via In Situ Self-Assembly of Dipeptide Hydrogel. <i>Analytical Chemistry</i> , 2017, 89, 12843-12849.	3.2	42
53	Application of ordered nanoparticle self-assemblies in surface-enhanced spectroscopy. <i>Materials Chemistry Frontiers</i> , 2018, 2, 835-860.	3.2	42
54	Biocompatibility of Magnetic Resonance Imaging Nanoprobes Improved by Transformable Gadolinium Oxide Nanocoils. <i>Journal of the American Chemical Society</i> , 2018, 140, 14211-14216.	6.6	41

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55	Dynamically Regulated Ag Nanowire Arrays for Detecting Molecular Information of Substrate-Induced Stretched Cell Growth. <i>Advanced Materials</i> , 2016, 28, 9589-9595.	11.1	38
56	Architectural Design of Self-Assembled Hollow Superstructures. <i>Advanced Materials</i> , 2019, 31, e1801441.	11.1	37
57	Microsphere Bouquets of Bismuth Telluride Nanoplates: Room-Temperature Synthesis and Thermoelectric Properties. <i>Journal of Physical Chemistry C</i> , 2010, 114, 1796-1799.	1.5	36
58	Thermodynamically Controlled Self-Assembly of Hierarchically Staggered Architecture as an Osteoinductive Alternative to Bone Autografts. <i>Advanced Functional Materials</i> , 2019, 29, 1806445.	7.8	36
59	Morphology-controlled synthesis of WO _{2.72} nanostructures and their photocatalytic properties. <i>RSC Advances</i> , 2016, 6, 48537-48542.	1.7	34
60	Templated Assembly of Gold Nanoparticles into Microscale Tubules and Their Application in Surface-Enhanced Raman Scattering. <i>Journal of Physical Chemistry B</i> , 2006, 110, 14179-14185.	1.2	33
61	Ordered Superparticles with an Enhanced Photoelectric Effect by Sub-Nanometer Interparticle Distance. <i>Advanced Functional Materials</i> , 2017, 27, 1701982.	7.8	32
62	Superficial-Layer-Enhanced Raman Scattering (SLERS) for Depth Detection of Noncontact Molecules. <i>Advanced Materials</i> , 2019, 31, e1804275.	11.1	31
63	Aptamer-functionalized nanomaterials for biological applications. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1569-1585.	3.2	31
64	Macroscale Lateral Alignment of Semiconductor Nanorods into Freestanding Thin Films. <i>Journal of the American Chemical Society</i> , 2013, 135, 6022-6025.	6.6	30
65	Binary Assembly of Colloidal Semiconductor Nanorods with Spherical Metal Nanoparticles. <i>Small</i> , 2012, 8, 843-846.	5.2	26
66	From lamellar to hierarchical: overcoming the diffusion barriers of sulfide-intercalated layered double hydroxides for highly efficient water treatment. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22506-22511.	5.2	26
67	Colorimetric Assay Using Mesoporous Fe-Doped Graphitic Carbon Nitride as a Peroxidase Mimetic for the Determination of Hydrogen Peroxide and Glucose. <i>ACS Applied Bio Materials</i> , 2020, 3, 59-67.	2.3	25
68	Universal Strategy for Improving the Sensitivity of Detecting Volatile Organic Compounds by Patterned Arrays. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15953-15957.	7.2	24
69	A Metal-Organic Framework Nanosheet-Assembled Frame Film with High Permeability and Stability. <i>Advanced Science</i> , 2020, 7, 1903180.	5.6	24
70	Rapid Synthesis of Cubic Pt Nanoparticles and Their Use for the Preparation of Pt Nanoagglomerates. <i>Journal of Nanoscience and Nanotechnology</i> , 2006, 6, 2056-2061.	0.9	23
71	Surface-enhanced Raman scattering from surfactant-free 3D gold nanowire networks substrates. <i>Talanta</i> , 2008, 75, 455-460.	2.9	23
72	Sensitive Detection of a Nerve-Agent Simulant through Retightening Internanofiber Binding for Fluorescence Enhancement. <i>Analytical Chemistry</i> , 2018, 90, 1498-1501.	3.2	23

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73	Mechanical penetration of β -lactam-resistant Gram-negative bacteria by programmable nanowires. <i>Science Advances</i> , 2020, 6, .	4.7	23
74	Hollow Metal Organic Framework Improves the Sensitivity and Anti-interference of the Detection of Exhaled Volatile Organic Compounds. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	23
75	Point-of-Care Test Paper for Exhaled Breath Aldehyde Analysis via Mass Spectrometry. <i>Analytical Chemistry</i> , 2021, 93, 9158-9165.	3.2	22
76	The fragmentation of gold nanoparticles induced by small biomolecules. <i>Chemical Communications</i> , 2008, , 4625.	2.2	21
77	Catalase Nanocapsules Protected by Polymer Shells for Scavenging Free Radicals of Tobacco Smoke. <i>Advanced Functional Materials</i> , 2015, 25, 5159-5165.	7.8	21
78	Self-Assembled Ag-MXA Superclusters with Structure-Dependent Mechanical Properties. <i>Advanced Materials</i> , 2018, 30, 1706327.	11.1	21
79	Spatial Confinement Tunes Cleavage and Reformation of C=N Bonds in Fluorescent Molecules. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 14365-14369.	7.2	21
80	Ultra-stable 2D layered methylammonium cadmium trihalide perovskite photoelectrodes. <i>Journal of Materials Chemistry C</i> , 2018, 6, 11552-11560.	2.7	20
81	Fluorescence Detection of a Broad Class of Explosives with One Zinc(II)-Coordination Nanofiber. <i>Analytical Chemistry</i> , 2016, 88, 10826-10830.	3.2	19
82	A Metastable Crystalline Phase in Two-Dimensional Metallic Oxide Nanoplates. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2055-2059.	7.2	19
83	Direct observation of nanoparticle multiple-ring pattern formation during droplet evaporation with dark-field microscopy. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13018-13025.	1.3	18
84	Thermal annealing of Au nanorod self-assembled nanostructured materials: Morphology and optical properties. <i>Journal of Colloid and Interface Science</i> , 2007, 316, 947-953.	5.0	16
85	Surface engineering of nanoparticles for triggering collective properties of supercrystals. <i>National Science Review</i> , 2017, 4, 672-677.	4.6	14
86	Nanoassembled Interface for Dynamics Tailoring. <i>Accounts of Chemical Research</i> , 2021, 54, 35-45.	7.6	13
87	Mechanical and Tribological Performances Enhanced by Self-Assembled Structures. <i>Advanced Materials</i> , 2020, 32, e2002004.	11.1	11
88	Self-assembly of semiconductor nanoparticles toward emergent behaviors on fluorescence. <i>Nano Research</i> , 2021, 14, 1233-1243.	5.8	11
89	Electrochemical Sensors Applied for In vitro Diagnosis. <i>Chemical Research in Chinese Universities</i> , 2021, 37, 803-822.	1.3	11
90	A Separation-Sensing Platform Performing Accurate Diagnosis of Jaundice in Complex Biological Tear Fluids. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	10

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91	Construction of metal nanoparticle/multiwalled carbon nanotube hybrid nanostructures providing the most accessible reaction sites. <i>Journal of Materials Chemistry</i> , 2007, 17, 4189.	6.7	9
92	Combining printing and nanoparticle assembly: Methodology and application of nanoparticle patterning. <i>Innovation(China)</i> , 2022, 3, 100253.	5.2	8
93	A Metastable Crystalline Phase in Two-Dimensional Metallic Oxide Nanoplates. <i>Angewandte Chemie</i> , 2019, 131, 2077-2081.	1.6	7
94	Glass Nanopipette Sensing of Single Entities. <i>Journal of Electroanalytical Chemistry</i> , 2022, 909, 116106.	1.9	7
95	Selective Capture and in Situ Controllable Detection of Cd^{2+} -Glucose in Cerebral Systems. <i>Analytical Chemistry</i> , 2020, 92, 4445-4450.	3.2	6
96	Spatial Confinement Tunes Cleavage and Reformation of C=N Bonds in Fluorescent Molecules. <i>Angewandte Chemie</i> , 2021, 133, 14486-14490.	1.6	6
97	Parallel Alignment of Carbon Nanotubes Induced with Inorganic Molecules. <i>Langmuir</i> , 2005, 21, 12068-12071.	1.6	5
98	Real-time <i>in vivo</i> imaging reveals specific nanoparticle target binding in a syngeneic glioma mouse model. <i>Nanoscale</i> , 2022, 14, 5678-5688.	2.8	5
99	Confined Assembly of Colloidal Nanorod Superstructures by Locally Controlling Free Volume Entropy in Nonequilibrium Fluids. <i>Advanced Materials</i> , 2022, 34, e2202119.	11.1	5
100	Lower work function of thermoelectric material by ordered arrays. <i>Science China Chemistry</i> , 2016, 59, 1264-1269.	4.2	4
101	Universal Strategy for Improving the Sensitivity of Detecting Volatile Organic Compounds by Patterned Arrays. <i>Angewandte Chemie</i> , 2020, 132, 16087-16091.	1.6	4
102	A Separation-Sensing Platform Performing Accurate Diagnosis of Jaundice in Complex Biological Tear Fluids. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	4
103	Research Progress in Thermoelectric Materials for Sensor Application. <i>Acta Chimica Sinica</i> , 2017, 75, 1029.	0.5	3
104	A guard to reduce the accidental oxidation of PbTe nanocrystals. <i>Nanoscale</i> , 2018, 10, 12284-12290.	2.8	2
105	Electrowetting of Nanofluids Containing Silver Nanoparticles. , 2008, , .		1
106	Nanotubes of Mixed-Valence, Transition Metal Compounds Synthesized by Solution Phase Approach. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 2516-2520.	0.9	0
107	Survey on the Mechanical Properties of Lamellar Ag_2MXA Supercluster Architectures. <i>Chemistry - A European Journal</i> , 2019, 25, 10662-10667.	1.7	0
108	Composite Materials Based on Metal-Organic Frameworks Designed for Sensors. <i>Current Analytical Chemistry</i> , 2021, 17, .	0.6	0

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109	Nanoparticle-assembled interface for tailoring dynamics of chemical reactions. , 2021, , .		0
110	Binary Cooperative Complementary Membranes: A Perspective. Advanced Materials Interfaces, 2022, 9, .	1.9	0