

# Zhengcao Li

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/7133047/zhengcao-li-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76  
papers

1,362  
citations

22  
h-index

35  
g-index

80  
ext. papers

1,515  
ext. citations

4.2  
avg, IF

4.51  
L-index

#	Paper	IF	Citations
76	Microstructure Characterization and Small Punch Test Analysis in Nickel-Based Alloy 617 by High Energy Neon Implantation. <i>Metals</i> , <b>2022</b> , 12, 438	2.3	
75	The structure evolution in neutron-Irradiated nuclear graphite and post-annealing. <i>Radiation Physics and Chemistry</i> , <b>2022</b> , 197, 110156	2.5	0
74	Oxidation Experiments and Kinetics Analysis of Nuclear Graphite ET-10 by Gas Analysis and Microstructure Observation. <i>Energies</i> , <b>2021</b> , 14, 6392	3.1	0
73	Neutron Depth Profiling Study on 6Lithium and 10Boron Contents of Nuclear Graphite. <i>Journal of Nuclear Science and Technology</i> , <b>2021</b> , 58, 1018-1024	1	
72	Ab initio calculations of interaction between Ni and Si in $\alpha$ -Fe. <i>Journal of Nuclear Science and Technology</i> , <b>2021</b> , 58, 201-206	1	
71	Effect of nitrogen ion irradiation treatment to the enhancement of ZnO photocatalytic performance. <i>Surface and Interface Analysis</i> , <b>2020</b> , 52, 348-354	1.5	1
70	Plasmonic photothermal synthesis of ZnO microspheres on Au/SiO <sub>2</sub> nanostructures. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 133105	2.5	0
69	Investigation on the oxidation behavior and multi-step reaction mechanism of nuclear graphite SNG742. <i>Journal of Nuclear Science and Technology</i> , <b>2020</b> , 57, 263-275	1	3
68	Dimensional changes and thermal conductivity by annealing and its relation to the defect concentration and stored energy release of neutron-irradiated graphite. <i>Journal of Nuclear Science and Technology</i> , <b>2019</b> , 56, 1006-1013	1	1
67	The evolution of He <sup>+</sup> irradiation-induced point defects and helium retention in nuclear graphite. <i>Journal of Nuclear Science and Technology</i> , <b>2019</b> , 56, 744-751	1	1
66	Investigation of kinetic recovery process in low dose neutron-irradiated nuclear graphite by thermal annealing. <i>Journal of Nuclear Science and Technology</i> , <b>2019</b> , 56, 533-540	1	3
65	FUELING RPS WITH MEDIUM AND MEDIUM HEAVY METAL ISOTOPES FROM FRESH SPENT NUCLEAR FUEL OF LWR. <i>The Proceedings of the International Conference on Nuclear Engineering (ICONE)</i> , <b>2019</b> , 2019.27, 1977	0.1	
64	Study on reaction of <sup>15</sup> Ti with fission products under various oxygen potential. <i>Journal of Nuclear Science and Technology</i> , <b>2019</b> , 56, 105-110	1	
63	High performance sandwich structured Si thin film anodes with LiPON coating. <i>Frontiers of Materials Science</i> , <b>2018</b> , 12, 147-155	2.5	13
62	Highly enhanced response of MoS <sub>2</sub> /porous silicon nanowire heterojunctions to NO at room temperature.. <i>RSC Advances</i> , <b>2018</b> , 8, 11070-11077	3.7	34
61	Effects of solute elements on microstructural evolution in Fe-based alloys during neutron irradiation following thermal ageing. <i>Journal of Nuclear Materials</i> , <b>2018</b> , 498, 259-268	3.3	11
60	Efficient photocatalytic performance enhancement in Co-doped ZnO nanowires coupled with CuS nanoparticles. <i>Applied Surface Science</i> , <b>2018</b> , 428, 154-164	6.7	42

59	Operando monitoring the lithium spatial distribution of lithium metal anodes. <i>Nature Communications</i> , <b>2018</b> , 9, 2152	17.4	69
58	Anisotropic ferromagnetism in Fe x Sn1-x O2 nanostructure arrays. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 3280-3288	4.3	2
57	Positron annihilation and nano-indentation analysis of irradiation effects on the microstructure and hardening of A508-3 steels used in Chinese HTGR. <i>Journal of Nuclear Science and Technology</i> , <b>2018</b> , 55, 418-423	1	8
56	Nitrogen ion irradiation effect on enhancing photocatalytic performance of CdTe/ZnO heterostructures. <i>Frontiers of Materials Science</i> , <b>2018</b> , 12, 392-404	2.5	2
55	Characterizing thermal-oxidation behaviors of nuclear graphite by combining O supply and micro surface area of graphite. <i>Scientific Reports</i> , <b>2018</b> , 8, 13400	4.9	6
54	Precision dilatometer analysis of neutron-irradiated nuclear graphite recovery process up to 1673 K. <i>Journal of Nuclear Science and Technology</i> , <b>2017</b> , 54, 424-431	1	3
53	Temperature-Dependent Multi-Scale Pore Evolution and Nitrogen Diffusion in Nuclear Graphite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2017</b> , 48, 3008-3016	2.3	1
52	Highly conductive AZO thin films obtained by rationally optimizing substrate temperature and oxygen partial pressure. <i>Molecular Crystals and Liquid Crystals</i> , <b>2017</b> , 644, 190-196	0.5	2
51	Honeycomb-like ZnO Mesoporous Nanowall Arrays Modified with Ag Nanoparticles for Highly Efficient Photocatalytic Activity. <i>Scientific Reports</i> , <b>2017</b> , 7, 11622	4.9	36
50	Investigation of oxidation behaviors of nuclear graphite being developed and IG-110 based on gas analysis. <i>Journal of Nuclear Science and Technology</i> , <b>2017</b> , 54, 1168-1177	1	6
49	Surface graphited carbon scaffold enables simple and scalable fabrication of 3D composite lithium metal anode. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 19168-19174	13	47
48	Effects of reaction temperature and inlet oxidizing gas flow rate on IG-110 graphite oxidation used in HTR-PM. <i>Journal of Nuclear Science and Technology</i> , <b>2017</b> , 54, 196-204	1	14
47	Enhanced Visible Light Photocatalytic Activity of ZnO Nanowires Doped with Mn and Co Ions. <i>Nanomaterials</i> , <b>2017</b> , 7,	5.4	86
46	Role of Ag2S coupling on enhancing the visible-light-induced catalytic property of TiO2 nanorod arrays. <i>Scientific Reports</i> , <b>2016</b> , 6, 19754	4.9	20
45	ZnO nanorod/porous silicon nanowire hybrid structures as highly-sensitive NO2 gas sensors at room temperature. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 4835-41	3.6	60
44	Effects of solute elements on hardening and microstructural evolution in neutron-irradiated and thermally-aged reactor pressure vessel model alloys. <i>Journal of Nuclear Science and Technology</i> , <b>2016</b> , 53, 1546-1553	1	8
43	Enhanced visible light photocatalytic performance of ZnO nanowires integrated with CdS and Ag2S. <i>Dalton Transactions</i> , <b>2016</b> , 45, 3750-8	4.3	76
42	Aqueous Phase Synthesis and Enhanced Field Emission Properties of ZnO-Sulfide Heterojunction Nanowires. <i>Scientific Reports</i> , <b>2016</b> , 6, 29470	4.9	13

41	Enhanced Field Emission Performance of Hierarchical ZnO/Si Nanotrees with Spatially Branched Heteroassemblies. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 13564-8	9.5	26
40	High-magnetic field annealing effect on room-temperature ferromagnetism enhancement of un-doped HfO <sub>2</sub> thin films. <i>Applied Physics A: Materials Science and Processing</i> , <b>2015</b> , 119, 917-921	2.6	0
39	Enhanced field-emission of silver nanoparticle-graphene oxide decorated ZnO nanowire arrays. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 31822-9	3.6	26
38	Effect of Xe ion irradiation on photocatalytic performance of oblique TiO <sub>2</sub> nanowire arrays. <i>Applied Surface Science</i> , <b>2015</b> , 327, 478-482	6.7	9
37	Radiation Defects Formed in Ion-Irradiated 316L Stainless Steel Model Alloys with Different Si Additions. <i>Materials Transactions</i> , <b>2015</b> , 56, 1549-1552	1.3	4
36	Optimizing Field Emission Properties of the Hybrid Structures of Graphene Stretched on Patterned and Size-controllable SiNWs. <i>Scientific Reports</i> , <b>2015</b> , 5, 15035	4.9	39
35	X-ray irradiation-induced reversible wettability modification of titanium NRAs. <i>RSC Advances</i> , <b>2015</b> , 5, 4524-4528	3.7	2
34	Wettability manipulation of magnetic transition metal nanorod arrays by X-ray irradiation. <i>Frontiers of Materials Science</i> , <b>2015</b> , 9, 311-315	2.5	1
33	Tunable field emission properties of well-aligned silicon nanowires with controlled aspect ratio and proximity. <i>RSC Advances</i> , <b>2014</b> , 4, 31729-31734	3.7	11
32	CO <sub>2</sub> corrosion of IG-110 nuclear graphite studied by gas chromatography. <i>Journal of Nuclear Science and Technology</i> , <b>2014</b> , 51, 487-492	1	12
31	Enhanced photoelectrochemical properties of TiO nanorod arrays decorated with CdS nanoparticles. <i>Science and Technology of Advanced Materials</i> , <b>2014</b> , 15, 055006	7.1	30
30	Mechanical property improvement by texture control of magnetron co-sputtered Zr-Ti films. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 043524	2.5	8
29	TDDFT study on quantization behaviors of nonadiabatic couplings in polyatomic systems. <i>International Journal of Quantum Chemistry</i> , <b>2013</b> , 113, 263-271	2.1	13
28	Origin of the defects-induced ferromagnetism in un-doped ZnO single crystals. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 071914	3.4	60
27	Visible Light Photoelectrochemical Properties of N-Doped TiO <sub>2</sub> Nanorod Arrays from TiN. <i>Journal of Nanomaterials</i> , <b>2013</b> , 2013, 1-8	3.2	8
26	MoO thin films deposited by magnetron sputtering as an anode for aqueous micro-supercapacitors. <i>Science and Technology of Advanced Materials</i> , <b>2013</b> , 14, 065005	7.1	19
25	Enhanced room-temperature ferromagnetism in un-doped ZnO thin films by thermal annealing in a strong magnetic field. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 103524	2.5	14
24	Enhanced surface-enhanced Raman scattering performance by folding silver nanorods. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 113101	3.4	49

23	Substrate effect on the room-temperature ferromagnetism in un-doped ZnO films. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 031913	3.4	33
22	Oxygen vacancy induced ferromagnetism in un-doped ZnO thin films. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 033501	2.5	113
21	Effects of Porosity and Temperature on Oxidation Behavior in Air of Selected Nuclear Graphites. <i>Materials Transactions</i> , <b>2012</b> , 53, 1159-1163	1.3	14
20	The Novel Wetting Behavior of Periodic $Ti_xSn_{1-x}O_2$ Nanostructures. <i>Materials Transactions</i> , <b>2012</b> , 53, 191-194	1.3	1
19	Effects of Alkali Corrosion Preprocessing on the Growth of Aligned Silver Nanorods Array and Its Improvement for Surface-Enhanced Raman Scattering. <i>Materials Transactions</i> , <b>2012</b> , 53, 1278-1281	1.3	
18	Preparation of Highly Textured ZnO Thin Films by Pulsed Electron Deposition. <i>Materials Transactions</i> , <b>2011</b> , 52, 1764-1767	1.3	4
17	A Simple Model to Describe the Rule of Glancing Angle Deposition. <i>Materials Transactions</i> , <b>2011</b> , 52, 469-473	1.3	40
16	Preparation and Photocatalytic Property of TiO <sub>2</sub> Columnar Nanostructure Films. <i>Materials Transactions</i> , <b>2011</b> , 52, 1939-1942	1.3	14
15	Thermal stability and sputtering resistance under irradiation of yttria dispersed ferrum films. <i>Rare Metals</i> , <b>2011</b> , 30, 258-261	5.5	
14	Influence of vacuum annealing and irradiation on magnetic properties of Fe-3%Y <sub>2</sub> O <sub>3</sub> films. <i>Rare Metals</i> , <b>2011</b> , 30, 453-457	5.5	
13	Growth of [010] oriented $\beta$ -MoO <sub>3</sub> nanorods by pulsed electron beam deposition. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 223104	3.4	18
12	Fabrication and Optical Property of Periodic $Sn_{1-x}Ti_xO_2$ Nanostructures Patterned by the Polystyrene Microsphere Templates. <i>Journal of Nanomaterials</i> , <b>2011</b> , 2011, 1-7	3.2	2
11	Irradiation Induced Localized Amorphization in Mo-Re Alloy Films. <i>Materials Transactions</i> , <b>2010</b> , 51, 670-674	1.3	2
10	Rapid recognition of isomers of monochlorobiphenyls at trace levels by surface-enhanced Raman scattering using Ag nanorods as a substrate. <i>Nano Research</i> , <b>2010</b> , 3, 423-428	10	52
9	Realignment of slanted Fe nanorods on silicon substrates by a strong magnetic field. <i>Nano Research</i> , <b>2010</b> , 3, 438-443	10	8
8	Effect of magnetic field on the visible light emission of V <sub>2</sub> O <sub>5</sub> nanorods. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 103107	3.4	37
7	Nanostructuring HfO <sub>2</sub> Thin Films as Antireflection Coatings. <i>Journal of the American Ceramic Society</i> , <b>2009</b> , 92, 3077-3080	3.8	22
6	Facile Synthesis of $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> Nanostructured Films with Controlled Morphology. <i>Materials Transactions</i> , <b>2009</b> , 50, 1351-1354	1.3	12

- 5 Oxygen defect induced photoluminescence of HfO<sub>2</sub> thin films. *Applied Physics Letters*, **2008**, 93, 011905 3,4 53
- 4 Influence of deposition conditions on the morphology and phase of tungsten oxide nanorods synthesized by thermal oxidation. *Frontiers of Materials Science in China*, **2007**, 1, 16-19 1
- 3 Synthesis of silicon carbide nanowires by solid phase source chemical vapor deposition. *Frontiers of Materials Science in China*, **2007**, 1, 304-308 8
- 2 Growth control of tungsten oxide nanostructures on planar silicon substrates. *Applied Physics Letters*, **2006**, 89, 193111 3,4 24
- 1 Light-Directed Assembly of Colloidal Matter. *Advanced Functional Materials*, 2104649 15,6 4