

Professor ZENG Xianghua

College	College of Physical Science and Technology
Current Position	Professor
Types of Tutor	Doctoral Tutor
Language	Chinese/English
Education	1996-08 to 1999-07: Institute of Modern Physics, Chinese Academy of Sciences: Lanzhou, Gansu, CN, Ph.D (Nuclear Physics) 1990-08 to 1994-03: Institute of Modern Physics, Chinese Academy of Sciences: Lanzhou, Gansu, CN, Master (Theoretical Nuclear Physics) 1983-08 to 1987-06: Lanzhou University: Lanzhou, Gansu, CN, B.S (Mathematics)
Research Interests	Preparation of Opto-electro materials, physical properties and applications
Selected Publications	1. TiO ₂ @Sn ₃ O ₄ Nanorods Vertically Aligned on the Carbon Fiber Papers for Enhanced Photoelectrochemical Performance, RSC Adv., 2019, 9, 23334–23342. 2. Improved visible-light photocurrent based on ZnO/ZnS core-shell nanorods via interfacial engineering, J. Phys. D: Appl. Phys. 52 (2019) 035501. 3. Measurements of the superconducting anisotropy in FeSe with a resonance frequency technique, AIP Advances 9, 045220 (2019). 4. Topological Formation of a Mo–Ni-Based Hollow Structure as a Highly Efficient Electrocatalyst for the Hydrogen Evolution Reaction in Alkaline Solutions, ACS Appl. Mater. Interfaces 2019, 11, 21998–22004. 5. Optimization of GaAs-based 940 nm infrared light emitting diode with

dual-junction design, *Optoelectronics Letters*, 15(2), 2019, 113-116.

6. Iron doped cobalt sulfide derived boosted electrocatalyst for water oxidation, *Applied Surface Science* 448 (2018) 9–15.

7. Different Annealing Atmosphere Gases on the Growth and Photocurrent Performance of CuO Films Grown on FTO Substrate, *ACS Omega* 2018, 3, 11354–11361.

8. Enhanced conductive loss in nickel–cobalt sulfide nanostructures for highly efficient microwave absorption and shielding. *J. Phys. D: Appl. Phys.* 2018, 51, 235303.

9. First-Row Transition Metal Based Catalysts for the Oxygen Evolution Reaction under Alkaline Conditions: Basic Principles and Recent Advances, *Small* 2017, 1701931(pp18), DOI: 10.1002/sml. 201701931.

10. Visible-light Self-powered Photodetector and Recoverable Photocatalyst Fabricated from Vertically Aligned Sn₃O₄ Nanoflakes on Carbon Paper, *J. Phys. Chem. C* 2017, 121, 19036–19043.

11. Interconnected SnO₂ Microsphere Films and their Improved Ultraviolet Photodetector Properties, *Journal of Elec Materi*, 2017, 46(11), 6669-6676.

12. Ferromagnetic Behavior of Nonstoichiometric ZnS Microspheres with a Nanoplate Netted Surface, *RSC Adv.*, 2017, 7, 20874–20881.

13. Engineering sulfur vacancies and impurities in NiCo₂S₄ Nanostructures toward Optimal Supercapacitive Performance, *Nano Energy* 26 (2016) 313–323

14. Mesoporous Multi-shelled ZnO Microspheres for the Scattering Layer of Dye Sensitized Solar Cell with a High Efficiency, *Appl. Phys. Lett.* 108

	<p>(2016)113902.</p> <p>15. Green and Tunable Decoration of Graphene with Spherical Nanoparticles Based on Laser Ablation in Water: A Case of Ag Nanoparticle/Graphene Oxide Sheet Composites, Langmuir 32(2016)1667–1673.</p> <p>16. Nanoplate-Built ZnO Hollow Microspheres Decorated with Gold Nanoparticles and Their Enhanced Photocatalytic and Gas-Sensing Properties, ACS Appl. Mater. Interfaces 7 (2015) 11824–11832.</p> <p>17. One-pot construction of three dimensional CoMoO₄/Co₃O₄ hybrid nanostructures and their application in supercapacitors, J. Mater. Chem. A 3 (2015) 21201–21210.</p> <p>18. Electrophoretic fabrication of silver nanostructure/zinc oxide nanorod heterogeneous arrays with excellent SERS performance, J. Mater. Chem. C, 2015, 3, 1724-1731.</p> <p>19. High Efficiency Photocatalytic Activity of Type-II SnO/Sn₃O₄ Heterostructures via Interfacial Charge Transfer, CrystEngComm, 2014, 16 (30), 6841 - 6847.</p> <p>20. Enhanced Raman Spectroscopy Induced by Surface Defects in Ripple-like CdS Microbelts, Appl. Phys. Lett., 104, 081609(1-5), 2014.</p>
Email	xhzeng@yzu.edu.cn