

## Professor ZHANG Chao

College	College of Mechanical Engineering
Current Position	Professor
Types of Tutor	Doctoral Tutor
Language	Chinese/English
Education	<p><b>2003.9-2009.1</b> Xi'an Jiaotong University, Materials Processing Engineering, Ph.D. (Joint Training)</p> <p><b>2004.12-2008.6</b> Ph.D., University of Technology, Belmont, France, Engineering and Microtechnology, Ph.D.</p> <p><b>1999.9-2003.7</b> Chongqing University, School of Mechanical Engineering, Material Forming and Control Engineering, Bachelor</p>
Research Interests	<p>Theoretical and Applied Research on Preparation of Thermal Spray Coating Based on Particle Accumulation.</p> <p>1) Taking thermal spraying alloy coating process optimization and coating tribology as the research content, selecting typical metal composite coating as the main research object, providing basic data and theoretical guidance for the application of structural coatings such as wear resistance and anti-corrosion;</p> <p>2) Aiming at gas detection and early warning, developing advanced gas sensing materials and ultra-thin functional coating manufacturing technologies, and developing room-temperature semiconductor gas sensing layers for ultra-low concentration target gases.</p>
Selected Publications	<ol style="list-style-type: none"><li>1. Zhang et. al, Room-temperature NO<sub>2</sub> gas sensors based on rGO@ZnO<sub>1-x</sub> composites: Experiments and Molecular Dynamics Simulation. Sensors and Actuators B: Chemical 282 (2019) 690-702. (SCI, IF:6.393)</li><li>2. Zhang et al, Effects of temperature and atmosphere on microstructure and tribological properties of plasma sprayed FeCrBSi coatings. Journal of Alloys and Compounds</li></ol>

	<p>753 (2018) 586-594. (SCI, IF:4.175)</p> <p>3. Zhang et. al, Hydrogen sensors based on noble metal doped metal-oxide semiconductor: a review, International Journal of Hydrogen Energy 42 (2017) 20386-20397. (SCI, IF:4.084)</p> <p>4. Zhang et. al, Role of oxygen vacancy in tuning of optical, electrical and NO<sub>2</sub> sensing properties of ZnO<sub>1-x</sub> coatings at room temperature. Sensors and Actuators B 248(2017) 886-893. (SCI, IF:6.393)</p> <p>5. Zhang et. al, Room-temperature nitrogen-dioxide sensors based on ZnO<sub>1-x</sub> coatings deposited by solution precursor plasma spray. Sensors and Actuators B 242 (2017) 102-111. (SCI, IF:6.393)</p> <p>6. Zhang et. al, Room temperature nitrogen dioxide sensors based on N719-dye sensitized amorphous zinc oxide sensors performed under visible-light illumination. Sensors and Actuators B 209 (2015) 69-77. (SCI, IF:6.393)</p>
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