

# Resume of Huiling GUO

## **Basic Information**



School :	School of Life Sciences and Health Engineering
Gender:	Female
Date of Birth:	198010
Title:	Associate professor
Education:	Ph.D of Engineering
Tutor:	Master degree
Interest of research:	Nanomedicine, design of intelligent nanomedicine delivery system

## **Academic Background**

From September 1999 to July 2003, Wuhan Institute of Technology, Bachelor's degree in Pharmaceutical Engineering;

From September 2003 to July 2006, Wuhan University of Technology, Master's degree of Applied chemistry;

From September 2008 to July 2011, Wuhan University of Technology, Ph.D. of Materials science.

## **Enrollment Information**

1. Enrollment Discipline: Pharmacy, Biopharmaceutical Engineering, Biological Medicine
2. Research direction: Nanomedicine, design of intelligent nanomedicine delivery system, separation and application of magnetic materials, molecular image
3. Enrollment Year: 2023-2024

## **Representative Projects**

1. National Natural Science Foundation of China (Young Foundation) " Construction and Analysis of Complex Magnetic Nanoparticles for Specific Enrichment and Highly Selective Separation and Purification of Target Proteins ", China, Project leader.
2. Natural Science Foundation of Hubei Province " Construction of Composite Magnetic Nanoparticles for Specific Enrichment and Highly Selective Separation and Purification of Target Proteins “, Hubei Province, Project leader.
3. Horizontal project " Nano Targeted Drug Development Platform Construction ", Hubei University of Technology, Project leader.
4. Independent Innovation Project of Hubei University of Technology " Targeted Multi-mode Collaborative Cancer Diagnosis and Treatment Nano Delivery System Research", Project leader.
5. Innovation and Entrepreneurship Training for College Students in Hubei Province “Dual-targeted Biodegradable MSNs for Tumor Synergistic

Chemotherapy/Photothermal Therapy", Advisor.

## **Representative Articles**

1. Amplification of Oxygen-Independent Free Radicals Based on a Glutathione Depletion and Biosynthesis Inhibition Strategy for Photothermal and Thermodynamic Therapy of Hypoxic Tumors, *ACS Applied Materials & Interfaces*, Vol. 16, 2024, Page 20079–20091.
2. Enzyme Functionalized PEOz Modified Magnetic Polydopamine with Enhanced Penetration for Cascade-augmented Synergistic Tumor Therapy, *International Journal of Biological Macromolecules*, Vol. 242, 2023, Page 124048.
3. Tumor Microenvironment (TME)-modulating Nanoreactor for Multiply Enhanced Chemodynamic Therapy Synergized with Chemotherapy, Starvation, and Photothermal Therapy. *J Mater Chem B*, Vol. 11, 2023, Page 1739-1748.
4. Copper-based Metal-organic Framework Enables ROS Amplification and Drug-potency Activation, *Langmuir*, Vol. 39, 2023, Page 8008–8021.
5. pH-responsive Nanocatalyst for Enhancing Cancer Therapy via H<sub>2</sub>O<sub>2</sub> Homeostasis Disruption and Disulfiram Sensitization, *Journal of Materials Chemistry B*, Vol. 11, 2023, Page 3397–3405.
6. Hyaluronic Acid-functionalized Redox Responsive Immunomagnetic Nanocarrier for Circulating Tumor Cell Capture and Release, *Nanotechnology*, Vol. 32, 2021, Page 475102-475114.
7. Recyclable Adsorbents Based on Fe<sub>3</sub>O<sub>4</sub> Nanoparticles on Lanthanum-modified Montmorillonite for the Efficient Phosphate Removal, *IET Nanobiotechnology*, Vol. 14, 2020, Page 527-536.
8. High-efficiency Ni<sup>2+</sup>-NTA/PAA Magnetic Beads with Specific Separation on His-tagged Protein, *IET Nanobiotechnology*, Vol. 14, 2020, Page 67-72.
9. Silver Triethanolamine Loaded PVB/CO Films for a Potential Liquid Bandage Application, *Journal of Biomaterials Applications*, Vol. 33, 2019, Page 1434-1443.
10. Fast and Highly Selective Separation of His-tagged Proteins by Ni<sup>2+</sup> Carrying Monodisperse Magnetic Core-shell Nanoparticles, *Applied Physics A*, Vol. 125, 2019, Page 333-334.
11. Fe<sub>3</sub>O<sub>4</sub>@PAM@NTA-Ni<sup>2+</sup> Magnetic Composite Nanoparticles for Highly Specific Separation of His-tagged Proteins, *Journal of Wuhan University of Technology-Materials Science Edition*, Vol. 33, 2018, Page 559-565.
12. Selective Binding and Magnetic Separation of His-tagged Proteins Using Fe<sub>3</sub>O<sub>4</sub>/PAM/NTA-Ni<sup>2+</sup> Magnetic Nanoparticles, *IOP Conference Series: Materials Science and Engineering*, Vol. 322, 2018, Page 022017.