**AppendixRecordD-1: Resume of Teachers in Water Supply and Drainage Science and Engineering**

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|---|---|---|---|---|---|---|---|
| **Name** | **Zhang Wei** | **Gender** | **man** | **Date of birth** | **1973.09** | **Job title** | **Professor, Senior Engineer** |
| **Highest degree** | **graduate student** | **highest degree** | **Doctorate** | **Email** | **hnweizhang@163.com** | | |
| **Educational background** | | | | | | | |
| **1991.09-1994.06, Hunan Urban Construction College, Department of Urban Construction, Water Supply and Drainage Engineering Major**<br>**2002.09-2005.06, Hunan University, School of Civil Engineering, Major in Municipal Engineering, Master's Degree in Engineering**<br>**2006.09-2011.06, Hunan University, School of Civil Engineering, Major in Municipal Engineering, Doctor of Engineering degree** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1]2024National Natural Science Foundation General Project——LDH/MIL-101(Fe)/La-Fe-$TiO_2$molecular design and synthesis and its removal mechanism study for typical nitrogen-containing heterocyclic compounds (52370074，520,000，principal investigator)**<br>**[2].2020National Natural Science Foundation of China General Project——Modified Shell Powder/Ce-N-$TiO_2$Study on the Mechanism of Adsorption and Photocatalytic Degradation of Typical Dissolved Organic Phosphorus (42071122，550,000，Principal Investigator)**<br>**[3].Ministry of Education Higher Education Department Collaborative Education Project: Construction of an Innovation and Entrepreneurship Base for School-Enterprise Cooperation in the Water Supply and Drainage Science and Engineering Major of Local Universities under the Background of New Engineering Disciplines (201902099006，1ten thousand, hosted)**<br>**[4].2015Hunan Provincial Natural Science Foundation General Project——Coagulation and Precipitation-MWNTs/TiO2Photocatalytic Process for the Degradation of Organophosphorus Pesticide Wastewater (2015JJ2022，40,000 yuan, Principal Investigator)**<br>**[5].2013Year of Hunan Province Education Science“Twelfth Five-Year Plan”Planning Project——Reform and Application of Practical Teaching Platform for Engineering Majors in Universities Based on Excellent Engineer Education (10,000yuan, hosted)**<br>**[6].2012Year“The Twelfth Five-Year Plan”National Science and Technology Support Program Subproject——Monitoring Technology Integration for Village** | | | | | | | |

**and Town Groundwater Sources (2012BAJ24B03-2,370,000, Principal)**

**[7].2011Year Hunan Provincial Department of Education Key Scientific Research Project——Phosphate Activation-Optimization of Microwave Pyrolysis Method for Preparing Sludge Adsorbent Materials (11A022，80,000，Principal Investigator)**

**[8].Hunan Province Scientific Research Program Project——Carbon Nanotubes/$TiO_2$Composite Material Functionalization Treatment and Its Photodegradation Study of Polychlorinated Biphenyls in Water (40,000 yuan, hosted)**

**Research paper**

**[1].Zhang Wei，Li Liwu，Zhang Qian，Xu Shunkai，Zhang Hua. Research on the photocatalytic degradation of typical chlorobenzene compounds using MWNTs/$TiO_2$ [J], Journal of Environmental Sciences, 2012，32（03），631-639.**

**[2].Zhang Wei，Shi Zhou，Zhang Qian，Xu Shunkai，Zhang Hua. MWNTs/$TiO_2$ for 1，2，3-Study on the synergistic effect of adsorption and photocatalytic degradation of trichlorobenzene[J]，Journal of Hunan University(Natural Science Edition)，2012，39（01），71-76.**

**[3].Zhang Wei, Shi Zhou, Zhang Qian, Zhang Hua, Xu Shunkai. Research on the photocatalytic degradation of$TiO_2$ loaded with carbon nanotubes for1,2,4-trichlorobenzene[J], Environmental Science, 2011,32（07），1974-1980.**

**[4].Zhang Wei, Shi Zhou, Zhang Qian, Zhang Hua, Xu Shunkai. Composite photocatalysts($TiO_2$/MWNTs) preparation process conditions on the photocatalytic degradation kinetics of methyl orange[J], Environmental Chemistry,2011,30（02），549-554.**

**[5].Shi Zhou, Zhang Qian, Zhang Wei, Xu Shunkai, Zhang Hua. Microwave modificationMWNTs/$TiO_2$composite materials for1,2,3-trichlorobenzene photodegradation study[J], Environmental Science,2012,33（11），3840-3846.**

**[6].Zhang Wei,Yang Liu,Li Liwu,Xu Shunkai,Zhang Hua.Preparation of sludge adsorbents by phosphoric acid activation - microwave pyrolysis method[J].Journal of Environmental Engineering,2013,7(07):2699-2704.**

**[7].Zhang Wei,Yang Liu,Jiang Haiyan,Wang Caiwen,Wang Aihe,Zhou Jun.Characterization of sludge activated carbon and its adsorption characteristics forCr(VI).[J].Journal of Environmental Engineering,2014,8(04):1439-1446.**

**[8].Zhang Wei,Wang Aihe,Jiang Haiyan.Adsorption of Methylene Blue by Sulfuric Acid Activated Municipal Sludge[J].Journal of Environmental Engineering,2015,9(08):3790-3794.**

**[9].Zhang Wei,Wang Jue,Wang Aihe.MWNTs and MWNTs/$TiO_2$ adsorption characteristics of oxamyl in water[J].China Water Supply and Drainage,2017,33(11):82-85+90.**

**[10].Zhang Wei,Wang Jue,Wang Aihe.MWNTs/$TiO_2$Factors Affecting the Photocatalytic Degradation of Oxamyl Pesticide and Kinetic Study[J].Journal of Water Ecology,2017,38(06):27-33.**

**[11]Zhang Wei,Liang Zhe,Wang Aihe et al..Optimization of Modified Oyster Shell Powder Preparation and Its Adsorption Performance for Glyphosate[J].Industrial Water Treatment,2022,42(03):90-97.**

**[12].Zhang Wei,You Qizheng,Shu Jinkai et al..Modified oyster shell powder/Ce-N-$TiO_2$ adsorption- photocatalytic degradation of glyphosate[J]. Journal of Environmental Engineering, 2023, 17(05): 1398-1408.**

**[13]Zhang Wei,Yu Long,Shu Jinkai.MWNTs/Bi2WO6-$TiO_2$Performance and Mechanism of Photocatalytic Degradation of Tetracycline[J].Water Purification Technology,2023,42(03):81-87+142.**

**[14]Wei Zhang, Zhe Liang*, Hai Lin, Jinkai Shu, and Aihe Wang. Adsorption Performance of Glyphosate on Modified Shell Powder/Ce-N-$TiO_2$, E3S Web of Conferences,2022,350, 01016.**

**[15]Wei Zhang, Nan Li, Caiwen Wang, Guangchao Li, Julong Sun and Shumin Zhu*. Elimination of micropollutants by the solar/chlorine process: contribution of reactive species and formation risk of NDMA, Environ. Sci.: Water Res. Technol., 2022, 8, 1252-1260.**

**[16] Zhang W, You Q, Shu J, et al. Optimization of Preparation Conditions of Modified Oyster Shell Powder/Ce-N-$TiO_2$ by Response Surface Methodology (RSM) [J]. Journal of Environmental Protection, 2023, 14(01): 16-31.**

**[17] Zhang W, You Q, Shu J, et al. Photocatalytic degradation of glyphosate using Ce/N co-doped TiO2 with oyster shell powder as carrier under the simulated fluorescent lamp [J]. Frontiers in Environmental Science, 2023, 11.**

**Educational Reform Paper**

**[1].Zhang Wei,Wang Aihe,Jiang Haiyan.Higher Education"Student-Centered"Talent Training System Reform and Reflection[J].Education Teaching Forum,2020(47):161-164.**

**[2].Zhang Wei,Wang Aihe.A Preliminary Exploration of the Reform of Internship Teaching in Water Supply and Drainage Science and Engineering Major Aimed at Cultivating Excellent Engineers[J].Science and Technology Information,2013(20):170-171.**

**[3].Zhang Wei,Zhang Chun,Li Liwu,Wang Aihe.Research on the Construction of Practical Teaching Platform for Water Supply and Drainage Engineering[J].Science and Technology Innovation Herald,2012(13):185.**

**Patent**

**[1].National Utility Model Patent: Suspended Photocatalytic Reactor (Patent Number:ZL201520404733.1);[2].National Utility Model Patent: A Suspended Photocatalytic Reactor (Patent Number:ZL201520405045.7)[3].National Utility Model Patent: Concrete Sedimentation-Photocatalytic Combined Treatment Device (Patent No:ZL201720780350.3)[4].National Invention Patent: A Preparation Method for Bismuth Tungstate Composite Photocatalyst (Application Number:202011374423.1)**

**Scientific Research Award**

**[1].Hosted the third prize of Hunan Province Science and Technology Progress Award——Study on the adsorption and photodegradation of chlorobenzene using multi-walled carbon nanotubes loaded with$TiO_2$ application technology (2016）**

**Teaching Award**

**[1].Hosted the third prize of the Hunan Provincial Teaching Achievement Award ——Research and practice on the talent training model for the Water Supply and Drainage Science and Engineering major guided by“engineering capability output” (2016）**

**[2].Hosted the first prize of the Teaching Achievement Award of Hunan City University——Professional ability in Water Supply and Drainage Science and Engineering based on project implementation“12345”Training system construction and practice (2019）**

**Published Monographs/Books**

**[1].Study on the adsorption and photodegradation of chlorobenzene using multi-walled carbon nanotubes loaded with$TiO_2$, Hunan Science and Technology Publishing House,2016.03 (Monograph, first author)**

**[2].Water Analysis Chemistry, Chemical Industry Press,2014.09（Textbook, Chief Editor）**

**[3].Water Pumps and Pump Stations, Peking University Press,October 2013 (Textbook, Chief Editor)**

**Engineering background**

**[1].Completed the design of construction drawings for the water supply plant and supporting pipeline network in the Jindong Management Area (Jindong Management Area Urban Construction Investment and Development Co., Ltd.,2016）[2].Completed the site selection demonstration report for the second water source in Yiyang City (Yiyang City Planning Bureau, 2017）**

**[3].Completed the construction drawing design for the water supply pipeline project on Taoyi Road (Taoyuan County Water Company, 2018）[4].Hosted the completion of the special planning for drainage and flood prevention in Yiyang City (Yiyang City Planning Bureau,2018）[5].Hosted the completion of the feasibility study report on emergency water sources in Yiyang City (Yiyang Housing and Urban-Rural Development Bureau,2018）[6]Hosted the completion of the construction drawing design for the water supply pressurization station and supporting pipeline network on Jinpen North Road in the Economic Development Zone of Taojiang County (Taojiang County Water Supply Company,2020）**

| Name | Zhang Chun | Gender | man | Date of birth | 1979.12 | Job title | Professor |
|---|---|---|---|---|---|---|---|
| Highest degree | graduate student | highest degree | Doctorate | Email | yuanc332@168.com | | |

**Educational background**

2012.09-2012.06, Doctor of Engineering degree from the School of Metallurgy and Environment, Central South University

2004.09-2007.07, Master's degree in Engineering from the College of Civil Engineering, Nanhua University

1999.09-2003.07, Bachelor of Engineering degree from the School of Chemical Engineering, North University of China

**Scientific Research and Teaching Reform Project**

[1].2017Hunan Province Natural Science Foundation Project: Magnetic Nanocore-ShellFe$_3$O$_4$Composite Materials for the Removal of Heavy Metal Antimony from Acidic Wastewater, Hunan Provincial Department of Science and Technology,2017JJ2020, Principal Investigator; (Completed)

[2].2016Hunan Provincial Department of Education Excellent Youth Project: Research on the Mechanism and Kinetics of Sulfur Dioxide Reduction and Decomposition of Zinc Cadmium Ferrite, Hunan Provincial Department of Education, 16B049, Principal Investigator; (Completed)

[3].2017Hunan Province's Ordinary Higher Education Teaching Reform Research Project in 2017: Research on Engineering Education and Engineering Construction for the Water Supply and Drainage Science and Engineering Major Aimed at International Accreditation,【2017】No. 452, hosted, (completed)

[4].2017Hunan Province Education Planning Project: Research on the Training Strategies for the "Engineering - Independent Thinking - Problem Solving" Ability of Students in the Water Supply and Drainage Science and Engineering MajorXJK17CGD006, hosted, (completed)

**Research paper**

[1]. Environmental Activity and Ecological Assessment of Heavy Metals in the Reductive Leaching Residue from Zinc Hydrometallurgy Industry《Transactions of the Indian Institute of Metals》, 73(7):1755-1761, 2020.05, SCISource journal, Chinese Academy of Sciences4th district, ranked1;

[2]. Adsorption performance of antimony by modified iron powder,《RSC Advances》, 9(54): 31645-31653, September 2019, SCI source journal, Chinese Academy of Sciences3 district, ranked1;

[3]. Magnetic seeds assisted iron recovery from the reductive leaching solution in hydrometallurgical process，《Transactions of the Indian Institute of Metals》,

72(10):2591-2597, 2019.05, SCI source journal, Chinese Academy of Sciences4 area, ranked1;

[4]. Reductive Clean Leaching Process of Cadmium from Hydrometallurgical Zinc Neutral Leaching Residue Using Sulfur Dioxide, 《Journal of Cleaner Production》, 113:910-918, 2016.02, SCI source journal, Chinese Academy of Sciences1 district, ranked 1;

[5].Study on the Mechanism and Kinetics of Zinc Reduction Leaching from Zinc Smelting Slag,Journal of China Nonferrous Metals, 26(1): 197-203, 2016.01, EISource Journal, Key Journal of Natural Science, Ranked No.1;

[6].Research on the mechanical and chemical stability behavior of lead smelting waste slag, Journal of Process Engineering, 15(6): 1034-1038, 2015.12, CSCD, Key journal of natural sciences, ranked1;

[7]. Reductive acid leaching of cadmium from zinc neutral leaching residue using hydrazine sulfate, 《Transactions of Nonferrous Metals Society of China》, 25(12): 4175-4182, 2015.10, SCI source journal, Chinese Academy of Sciences2 area, ranked1;

[8].Mechanical Activation-assisted Reductive Leaching of Cadmium from Zinc Neutral Leaching Residue Using Sulfuric Dioxide, 《The Journal of The Minerals, Metals & Materials Society》, 67(12): 3010-3021, October 2015, SCISource journal, Chinese Academy of Sciences3 district, ranked1;

**Educational Reform Paper**

[1].Research on the Cultivation of Complex Engineering Problem-Solving Ability for Students in Water Supply and Drainage Science and Engineering,Journal of Higher Education, 27:169-172, 2020.08, Teaching Reform Paper, ranked No.1;

[2].Teaching Reform of the Course "Water Quality Engineering" Based on the OBE Concept in the Context of Engineering Education, "Sichuan Cement", 04: 292+284 pages, April 2020, Teaching Reform Paper, ranked 1;

[3].Reflections on Engineering Ethics Education in Water Supply and Drainage Science and Engineering Based on Engineering Education Accreditation, Modern Property, 04: 130-131 , 2020.04, Teaching Reform Paper, ranked 1;

[4].Research on the Professional Certification of Water Supply and Drainage Science and Engineering, Engineering Education, and the Cultivation and Practice of Engineering Competence, Journal of Higher Education, 17:155-156+159, 2019.08, Teaching Reform Paper, ranked 1;

**Patent**

None

**Scientific Research Award**

None

**Teaching Award**

[1].Research and Practice on the Talent Training Model of Water Supply and Drainage Science and Engineering Oriented by “Engineering Capability Output””, Hunan

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| **Provincial Higher Education Provincial Teaching Achievement Award, Provincial Third Prize, Ranked Second, Hunan Provincial Department of Education,2016.07;**<br>**[2].“Specialized Major in Water Supply and Drainage Science and Engineering‘Construction and Innovation of a Composite Talent Training Model in Engineering and Innovation”, University-level First Prize, ranked second, Hunan City University,October 2015；**<br>**[3].“Construction and Practice of the Practical Teaching System for the Water Supply and Drainage Science and Engineering Major Oriented to Professional Competence‘12345’”, University-level First Prize, ranked third, Hunan City University,2019.03；** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **[1].The design of the water supply pipeline construction drawings for Lingling Avenue in Lingling District, Yongzhou City,2017, main contributors;**<br>**[2].Construction drawing design of the Changde Mengquan Town Water Supply Plant,2018, main contributors.** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Name** | **Wang Aihe** | **Gender** | **man** | **Date of birth** | **1982.03** | **Job title** | **Professor** |
| **Highest degree** | **graduate student** | **highest degree** | **Doctorate** | **Email** | **hnwaihe409@163.com** | | |
| **Educational background** | | | | | | | |
| **2001.09-2005.07, Anhui University of Science and Technology, Department of Biological and Chemical Engineering, Biotechnology, Bachelor of Science**<br>**2005.09-2008.06, Nanhua University, Department of Urban Construction, Municipal Engineering, Master's Degree in Engineering**<br>**2013.09-2017.11, Central South University, School of Metallurgy and Environment, Metallurgical Environmental Engineering, Doctor of Engineering** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1].General project of the Education Department: Study on the adsorption of ammonium nitrogen by modified peat resin particles in landfill leachate (15C0260),2015-2020, project leader.** | | | | | | | |

**[2].Key project of the Education Department: Optimization of preparation and efficient deep defluorination mechanism research of magnetic ternary metal composite oxide particle adsorbents(20A089), 2020-2023, project leader.**

**[3].Hunan Province Education Science Planning Leading Group Education Planning Project: Local Universities' Water Supply and Drainage Science and Engineering Major CourseSPOC Hybrid Teaching Model Construction and Practice(XJK20CGD068),2020-2022, Project Leader.**

**[4].Ministry of Education Higher Education Department Collaborative Education Project: Research on the Improvement of Engineering Practice Ability of Teachers in the Water Supply and Drainage Science and Engineering Major in Local Universities under the Background of Engineering Certification(201902099006),2020-2021,Project Leader.**

**[5].Teaching reform project of the Subcommittee on Teaching Guidance for the Water Supply and Drainage Science and Engineering Major of the Ministry of Education: Reform of practical teaching in the Water Supply and Drainage Science and Engineering Major in local universities under the background of engineering certification(GPSJZW2019-02), 2019-2021, Project leader.**

**[6].Hunan Provincial Natural Science Foundation Project: Preparation of porous particle materials of ternary metal composite oxides by biological template method and study on the mechanism of sulfate removal (2021JJ50152),2021.01-2024.12, project leader.**

**Research paper**

**[1]. Wang Aihe; *Zhou Kanggen; Liu Xing; Liu Fang; Zhang Chun; Chen Quanzhou，Granular tri-metal oxide adsorbent for fluoride uptake: Adsorption kinetic and equilibrium studies，Journal of Colloid and Interface Science, 2017，505：947-955.**

**[2]. Wang Aihe，Zhou Kanggen(*)，Liu Xing，Liu Fang，Chen Quanzhou，Development of Mg-Al-La tri-metal mixed oxide entrapped in alginate for removal of fluoride from wastewater，RSC Advances，2017,7(50): 31221-31229.**

**[3]. Wang Aihe，Zhou Kanggen(*)，Chen Wei，Zhang Chun，Liu Xing，Chen Quanzhou，LiuFang，Adsorption of fluoride by the calcium alginate embedded with Mg-Al-Ce trimetal oxides，Korean Journal of Chemical Engineering，2018, 35(8): 1636-1641.**

**[4].Wang Aihe, Zhou Kanggen(*), Liu Xing, Chen Quanzhou, Liu Fang,PMg-Al-Me(Me=La,Ce,Zr) composite oxide preparation and its defluorination performance, Environmental Science,2016, 37(12): 4874-4881.**

**[5].Wang Aihe, Zhou Kanggen(*), Liu Xing, Chen Quanzhou, Liu Fang, Synthesis of MgO-LDH by Double Droplet Co-precipitation MethodMgO-LDHDe-fluorination Performance, Journal of Nonferrous Metals,2017, 27(04): 869-875.**

**[6].Wang Aihe,Zhang Chun,Zhang Wei,Deng Yumei.Research on the adsorption of ammonia nitrogen by sulfuric acid activated municipal sludge[J].China Water Supply and Drainage,2016,32（17）:81-84.**

**Educational Reform Paper**

**[1].Wang Aihe,Li Hao,Zhang Chun,Jiang Haiyan.Research on the Reform of Practical Teaching in Local Undergraduate Colleges under the Background of New Engineering Disciplines——Taking Hunan University of Urban Construction's Water Supply and Drainage Science and Engineering as an Example[J].Sichuan Cement,2020(04):294.**

**[2].Wang Aihe,Zhang Wei,Li Hao,Jiang Haiyan,Zhang Chun.Construction of a Practical Teaching System for Water Supply and Drainage Science and Engineering Based on Engineering Quality Training[J].Industry and Technology Forum,2020,19(04):242-243.**

**[3].Wang Aihe,Zhang Wei.Reform of Experimental Teaching in Water Supply and Drainage Science and Engineering Major Aimed at Cultivating Excellent Engineers[J].China Market,2016(15):62-63.**

**[4].Wang Aihe.Thoughts on the Construction of Laboratory Management Teams in Newly Established Local Undergraduate Institutions[J].Higher Architectural Education,2015,24(03):160-162.**

**[5].Wang Aihe,Zhang Wei.Research on the Teaching Reform of the“Water Quality Engineering Experiment”Course Aimed at Excellence[J].China Electric Power Education,2013(26):82+84.**

**[6].Wang Aihe,Zhang Chun,Zhang Wei.Exploration and Research on Open Experimental Teaching of Water Quality Engineering[J].Guangzhou Chemical Industry,2011,39(24):132-133.**

**Patent**

**[1].Wang Aihe,Zhang Chun,Zhang Wei. A preparation system for a sludge-based adsorbent for treating lead-containing wastewater[P]. Hunan:CN205462267U,2016-08-17.**

**Scientific Research Award**

**[1].Zhang Wei.Study on the adsorption and photodegradation of chlorobenzene using multi-walled carbon nanotubes loaded with$TiO_2$, applied technology, Third Prize of Hunan Provincial Science and Technology Progress Award,2016, ranked third**

**Teaching Award**

**[1].Third Prize of Hunan Province Teaching Achievement Award----Based on“Engineering Capability Output”as the guiding principle, research and practice on the talent cultivation model for the Water Supply and Drainage Science and Engineering major,2016, ranked fourth.**

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|---|
| **[2].2017was awarded the title of Excellent Teacher by Hunan City University.**<br>**[3].Third“Deep Water Cup”National Water Supply and Drainage College Student Science and Technology Innovation Competition, Third Prize,2019.（First Advisor）** |
| **Published Monographs/Books** |
| **[1]Research on the Defluorination Performance of Granular Ternary Metal Composite Oxides.Central South University Press, 2021.11, Chief Editor**<br>**[2]Water Analysis Chemistry, Chemical Industry Press,2014.09, co-edited**<br>**[3]Water Pumps and Pump Stations, Peking University Press,2013.01, co-authored** |
| **Engineering background** |
| **Anren County Second Water Source Demonstration** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Chi Nianping** | **Gender** | **man** | **Date of birth** | **1973.12** | **Job title** | **Professor** |
| **Highest degree** | **graduate student** | **highest degree** | **Doctorate** | **Email** | **chinianping@163.com** | | |
| **Educational background** | | | | | | | |

**2008.09-2013.09, Tongji University, School of Environmental Science and Engineering, Municipal Engineering, Doctor of Engineering**

**2003.09-2006.07, Chongqing University, School of Urban Construction and Environmental Engineering, Municipal Engineering, Master of Engineering**

**1993.09-1996.07, Hunan City University, Department of Urban Construction, Water Supply and Drainage Major**

**Scientific Research and Teaching Reform Project**

**Zhejiang Province Science and Technology Plan Project: Development and Application of Low Pollution Forward Osmosis Membrane for Membrane Bioreactor-(2016C33014),2016-2017,150,000 yuan, project leader.**

**Hunan Provincial Natural Science Foundation: Magnetic Diatomaceous Earth-Research on the Mechanism of Ceramic Membrane Bioreactor in Removing Dissolved Organic Nitrogen**

**22022-2024，500,000 yuan, project leader.**

**Key project of the Hunan Provincial Department of Education's scientific research project: Study on the mechanism of removing sulfonamide antibiotics using a composite magnetic powder coupled dynamic bioreactor,-60,000 yuan, project leader.**

**Hunan Province Education Science Planning:"Integration of Specialization and Innovation"Research on the Optimization of the Curriculum System for Innovation and Entrepreneurship in the Water Supply and Drainage Science and Engineering Major,100,000yuan, project leader.**

**Research paper**

**FeS redox power motor for PDS continuous generation of active radicals on efficient degradation and removal of diclofenac: Role of ultrasonic. Chemosphere.**

**Efficient removal of RR2 dye by electro-Ce(III) process with its elegant arts and attractive charm in performance, energy consumption and mechanism. Environmental Research**

**Preparation of amphiphilic cationic polyacrylamide (CPAM) with cationic microblock structure to enhance printing and dyeing sludge dewatering and conditioning performance. Environmental Science and Pollution Research.**

**Pre-treatment+Catalytic internal electrolysis+Ceramic membraneA/O-MBRTreatment of coking wastewater.China Water Supply and Drainage.**

**ZnO/g-$C_3N_4$ Nanostructured Photocatalyst for Enhancement of Photodegradation of Antibiotic Pollutant in Wastewater under Simulated solar Light Illumination**

**[6].Chi Nianping, Dong Bingzhi, Luo Wenlian, He Zhiyong, Concrete/Hydrolysis Acidification/Combined Biological Treatment Process for Washing Wastewater[J], China Water Supply and Drainage,2010, (26), 2, 57-59;**

**[7].Chi Nianping, Luo Wenlian, Liao Yi, Dong Bingzhi, Composite Ecological Filter Beds for the Restoration of Heavy Metal Contaminated Surface Water[J], Journal of Environmental Sciences,2010, (30), 10, 1971-1976**

**[8].Chi Nianping, Zhang Yongji, Dong Bingzhi, Zhou Lingling, The Effects of Different Disinfectants on Nutrient Substrates in Drinking Water[J],Journal of Hunan University (Natural Science Edition),2010，（37），10，83-87;**

**[9].Chi Nianping, Dong Bingzhi, Liao Yi, Luo Wenlian. Establishment and Application of a Quantitative Model for Effective Energy Consumption in the Flocculation Process[J], Water Treatment Technology,2010,36,11,22-24**

**[10].Chi Nianping,A -A2 /O Practice of Quality Improvement and Transformation of Urban Sewage Treatment Plants[J], Journal of Jiamusi University,2011,（29），3，358-360，364；**

**[11]. Chi, Nianping；Chu, Huaqiang；Gui, Bo；etc, Identification of irreversible foulants in spiral ultrafiltration membranes[J], Fresenius Environmental Bulletin, 2013, 22(8): 2226-2233.**

**[12].Wang Pu, Chi Nianping, Research on the Influencing Factors of the Fractal Dimension of Flocculated Bodies[J], Water Treatment Technology,2006, (32),9,19-22;**

**[13].Wang Pu, Chi Nianping, Li Jiangtao, Quantitative Experiment on Flocculation Effect Based on Fractal Dimension[J] , Journal of Sichuan University (Engineering Science Edition),2006,（38）6,79-82**

**[14].Cheng Yizhi, Ji Zhihui, Zhu Jian, Chi Nianping, Qifloat-Concrete-FentonDynamic Simulation Study of Oxidation Treatment of Landfill Leachate[J], Industrial Water and Wastewater,2010, (40), 3, 41-45;**

**[15]. Luo Wenlian, Zhu Jian, Cheng Yizhi, Ji Zhihui, Chi Nianping, Concrete-Simulation experiments on the treatment of landfill leachate by ultraviolet photocatalytic oxidation[J], Journal of Central South University of Forestry and Technology,2011, (31), 1, 86-90**

**[16].Luo Wenlian, Chi Nianping, Cheng Yizhi, Ji Zhihui, Vehicle-mounted CirculatingUV/Fenton Device for Treating Leachate from Small Town Landfills[J], Sichuan Environment,2010, (29),12,16-20**

**[17]. Preparation of a novel $Fe_2O_3$-$MoS_2$-CdS ternary composite film and its photoelectrocatalytic performance[J]；Tongtong Zhang, Handou Zhang, Yun Ji, Nianping Chi, Yanqing Cong; Electrochimica Acta，2018，285，230-240；**

**[18]. Mechanism and efficiency of contaminant reduction by hydrated electron in the sulfite/iodide/UV process[J]；Keer Yu, Xuchun Li, Liwei Chen, Jingyun Fang, Huali Chen, Qiangbiao Li, Nianping Chi, Jun Ma**

**Water Research,2018(129),357-364;**

**[19]. Improving the hydrophilic and antifouling properties of poly(vinyl chloride) membranes by atom transfer radical polymerization grafting of poly(ionic liquid) brushes[J]；Yuan-yuan Cheng，Chun-hui Du，Chun-jin Wu，Kai-xiang Sun，Nian-ping Chi, Polymers for advanced technologies; 2018**

**[20].Du Chunhui, Cheng Junjie, Wu Chunjin, Zhang Xinyi, Sun Kaixiang, Chi Nianping, Research on Chitosan Composite Forward Osmosis Membrane and Its Separation of Emulsified Oil Wastewater[J], Water Treatment Technology,2019, (45),5,25-28,33**

**[21]. Yanqing Cong, Wenhua Zhang, Wenchen Ding, Tongtong Zhang, Yi Zhang, Nianping Chi, Qi Wang. Fabrication of electrochemically-modified BiVO4-MoS2-Co3O4 composite film for bisphenol A degradation [J]. Journal of Environmental Science, 2021，102，341-351；**

**Educational Reform Paper**

**Based on OBE concepts, a study on the construction of a curriculum evaluation system for the water supply and drainage science and engineering major in local universities.Contemporary Educational Practice and Teaching Research**

| |
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| **Research on the Construction of Curriculum System for Water Supply and Drainage Science and Engineering under Professional Certification Background.Modern Property** |
| **Scientific Research Award** |
| **None** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **[1].Safety and Smart Management of Drinking Water Supply and Distribution, Central South University Press** |
| **Engineering background** |
| **The comprehensive renovation project of the Lanxi River in Yiyang City,2023year** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Zhu Xilin** | **Gender** | **man** | **Birth Year and month** | **1966.10** | **Job title** | **Professor-level Senior Engineer** |
| **Highest degree** | **undergraduate** | **highest degree** | **Bachelor** | **Email** | **ZXL6981@163.com** | | |
| **Educational background** | | | | | | | |
| **1984.09～1988.06, Tongji University, Department of Environmental Engineering, Bachelor of Engineering** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **None** | | | | | | | |
| **Research paper** | | | | | | | |
| **[1].Zhu Xilin.Discussion on Water Conservation and Energy Saving Design of Building Water Supply Systems[J].Water Supply and Drainage, 2011,47(08):85-87。**<br>**[2].Zhu Xilin.Research on the Design of Rooftop (High Position) Fire Water Tanks[J].Water Supply and Drainage,2012,48(08):90-94.**<br>**[3].Zhu Xilin.Research on the Flow Calculation Method for the Design of Water Supply Pipeline Networks in Villages and Towns[J].China Water Supply and Drainage,2012, 28(18):68-72。** | | | | | | | |
| **Educational Reform Paper** | | | | | | | |

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| **None** |
| **Patent** |
| **None** |
| **Scientific Research Award** |
| **None** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **[1].Green Industrial Building Evaluation Standard(GB/T 50878−2013), is one of the main drafters of the standard.**<br>**[2].National Survey and Design Registered Public Equipment Engineer Water Supply and Drainage Professional Qualification Examination Textbook−Volume3Building Water Supply and Drainage Engineering, compiling the chapter on building fire protection.** |
| **Engineering background** |
| **I am mainly engaged in the design and management of water supply and drainage engineering. I have obtained the Professional Qualification Certificate for Registered Public Equipment Engineer (Water Supply and Drainage) and the Professional Qualification Certificate for Registered Supervision Engineer in the People's Republic of China.** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Wang Lixin** | **Gender** | **man** | **Date of birth** | **1966.11** | **Job title** | **professor level**<br>**Senior Engineer** |
| **Highest degree** | **undergraduate** | **highest degree** | **Bachelor** | **Email** | **wanglixincecchina.com** | | |
| **Educational background** | | | | | | | |
| **1984.09-1988.07, Bachelor of Engineering in Water Supply and Drainage from the Department of Civil Engineering, Hunan University** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **None** | | | | | | | |

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| **Research paper** |
| **None** |
| **Educational Reform Paper** |
| **None** |
| **Patent** |
| **Calcium carbonate chemical sludge dewatering discharge device**<br>**Patent type: Utility model**<br>**Application/Patent number:CN201520768412.X**<br>**Public/Announcement Number:CN20502407U**<br>**Public/Announcement Date2016.02.10** |
| **Scientific Research Award** |
| **None** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **Registered Public Equipment Engineer (Water Supply and Drainage Specialty)** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Yan Hengzhen** | **Gender** | **Woman** | **Date of birth** | **1973.02** | **Job title** | **Associate Professor** |
| **Highest degree** | **graduate student** | **highest degree** | **Doctorate** | **Email** | **Zheng7302@126.com** | | |
| **Educational background** | | | | | | | |
| **1992.09-1996.07, Wuhan University of Technology, School of Civil Engineering and Architecture, Bachelor of Engineering** | | | | | | | |

**2000.09-2003.07, Wuhan University of Technology, School of Civil Engineering and Architecture, Master of Engineering degree**

**2007.09-2010.07, Wuhan University of Technology, School of Civil Engineering and Architecture, Doctor of Engineering**

**Scientific Research and Teaching Reform Project**

**[1].2014Research Project on Teaching Reform in Hunan Province's Ordinary Higher Education Institutions——Research on the Reform of the Talent Training Model for the Major of Water Supply and Drainage Science and Engineering in School-Enterprise Cooperation (Hunan Provincial Department of Education, (Xiang Jiao Tong [2014])247th, provincial and ministerial level,25,000 yuan, hosted);**

**[2].2013Hunan Provincial Department of Education Scientific Research Youth Project——Evaluation of the Biodegradability of Typical Oxidized Mineral Flotation Reagents (Hunan Provincial Department of Education, No: 13B009, Provincial and Ministerial Level, 40,000 yuan, Principal Investigator);**

**[3].2013Research Project of Higher Education Science at Hunan City University ——Construction of an Applied Innovation Faculty Team Based on the Excellent Engineer Training Program (Hunan City University, No:JK13A007, Department Level,1Ten Thousand Yuan, Principal Investigator).**

**Research paper**

**[1].Yan Hengzhen,Chen Shaohua.Study on the Biodegradability of Hydrocarbon Yellow Agents and Their Structural Correlation[J].Journal of Safety and Environment,2015,16（6）：242-245.(CSCD)**

**[2].Yan Hengzhen, Gong Wenqi, Mei Guangjun et al..Research on the aerobic biodegradation performance of amine-type collectors [J].Journal of Safety and Environment,2011,11（4）:76-81.(CSCD)**

**Educational Reform Paper**

**[1].Yan Hengzhen.Exploration and Practice of Teaching Reform in Water Supply and Drainage Pipeline Network System[J].China Electric Power Education,2014，（5）:8-9.**

**[2].Yan Hengzhen.A Preliminary Study on Improving the Classroom Teaching Ability of Young Teachers in Higher Education[J].Science and Technology Information,2015，（8）：13-14.**

**Patent**

**[1].Yan Hengzhen.A hydraulic cavitation conditioning device for residual sludge[P].Utility model patent, patent number:ZL201620213460.7, authorization announcement date:2016.08.24.**

**[2].Yan Hengzhen.A device for cavitation conditioning of residual sludge[P].Utility model patent, patent number:ZL201620213491.2, authorization announcement date:2016.10.05.**

**Scientific Research Award**

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|---|
| **[1].Yan Hengzhen,Chen Shaohua.Research on the Biodegradability of Hydrocarbon Yellow Agents and Their Structural Correlation.Second Prize of the 2nd NaturalScience Excellent Academic Achievement Award in Yiyang,2016.** |
| **Teaching Award** |
| **[1].2012Year Awarded“Youth Teacher Teaching Expert of Hunan Province” Title**<br>**[2].Design of Urban Rain Gardens Based on the Climate Conditions of Hunan Province.First Hunan Province College Student Comprehensive Utilization of Water Resources Innovative Design Competition, Second Prize,2016.(First Supervisor)** |
| **Published Monographs/Books** |
| **[1].Research on the Biodegradable Properties of Amine Collectors,Hunan Science and Technology Publishing House,2016.10** |
| **Engineering background** |
| **None** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Deng Jie** | **Gender** | **Woman** | **Date of birth** | **1971.11** | **Job title** | **Associate Professor** |
| **Highest degree** | **graduate student** | **highest degree** | **Master's degree** | **Email** | **hndjie@163.com** | | |
| **Educational background** | | | | | | | |
| **1998.09-2001.06, Hunan University School of Civil Engineering, Master of Engineering degree**<br>**2003.09-2008.05, Hunan University, College of Civil Engineering, Master of Engineering degree** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1].Ministry of Education Higher Education Department Collaborative Education Project:Research on the Teaching Reform of Water Supply and Drainage Engineering Course under the Background of Engineering Education Accreditation(201902099001),2020-2021,Project Leader.**<br>**[2].Hunan Provincial Department of Education Excellent Youth Project: Experimental Study on Hydraulic Cavitation of Porous Plates and Its** | | | | | | | |

**Enhancement Effects (08C201),2008-2012, project leader.**

**[3].Hunan Provincial Department of Education General Project: Experimental Study on Hydraulic Cavitation of Porous Plates and Its Strengthening Effects (08C201),June 2008 - December 2010, Project Leader.**

**[4]Yiyang City Science and Technology Program Project: Research on Hydraulic Cavitation in the Wastewater Field (Number: YKZ0609),2006-2008, Project Leader.**

**Research paper**

**[1] Deng Jie.Experimental Study of the Porous Plate Hydrodynamic Cavitation Device and Removal of Algae in Water[J].Recent Development on Material Science and Environmental Material,2013,7：569-572(EIIndexed).**

**[2] Deng Jie, Experimental Investigation on Enhancive Effect of Hydrodynamic Cavitation [J]. Advances in Chemical Engineering III,2013, 7:2865-2869 (EIIndexed).**

**[3] Deng Jie. Study on Absorption Experiment of Methylene Blue by Nitrifying Peat[J]. Sustainable Cities Development and Environment, 2012, 8：1969-1972 (EIIndexed).**

**Educational Reform Paper**

**Deng Jie,Zhou Shuiqiang,Wang Aihe,Deng Yumei.Teaching Reform of the Building Water Supply and Drainage Engineering Course under International Engineering Education Professional Accreditation[J].Industry and Technology Forum,2020,19（24）：150-151.**

**Deng Jie.Analysis of the Reform of Practical Teaching in Building Water Supply and Drainage Engineering[J].Science and Technology Information,2011，（7）：158-159.**

**Patent**

**[1].Deng Jie.A composite catalyst for wastewater treatment and its preparation method[P].Invention patent, patent number:ZL202210107796.5, authorized announcement date September 08, 2023;**

**Scientific Research Award**

**None**

**Teaching Award**

**Awarded the title of Excellent Teacher at the Second Urban College, First Prize in the Fourth Young Teacher Teaching Competition, Excellent Teaching Quality Award, Excellent Supervisor for Graduation Design, and Third Prize for Excellent Paper in Teaching Research Reform, among others.**

**2015Year main guidance for college students“Challenge Cup”competition, third prize.（First guiding teacher）**

**Published Monographs/Books**

| |
|---|
| **[1].Associate Editor of "Building Water Supply and Drainage System Engineering," Chief Editor: Fu Zhengrong, Machinery Industry Press,21Century Higher Education Series Textbooks on Architecture and Environmental Engineering,2011Year.**<br>**[2].Co-authored "Urban Water Saving Projects," edited by Wei Qun, China Building Materials Industry Press,2006year.** |
| **Engineering background** |
| **[1].S209Quality inspection for the completion acceptance of the new construction project of the southern section of the Loudi City Ring Road and the new Shibuf Bridge;**<br>**[2].Load testing and inspection of the West Extension Bridge Project on Binhulu Road in Changde City;**<br>**[3].Lianyuan City Transportation Bridge Project.** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Name** | **Li Yuanping** | **Gender** | **Woman** | **Date of birth** | **1982.01** | **Job title** | **Associate Professor** |
| **Highest degree** | **graduate student** | **highest degree** | **Doctorate** | **Email** | **yuanpingli@hncu.edu.cn** | | |
| **Educational background** | | | | | | | |
| **2000.09-2004.06, Hunan University, School of Environmental Science and Engineering, Bachelor of Engineering**<br>**2005.09-2015.06, Hunan University School of Environmental Science and Engineering, Doctor of Engineering degree** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1].Hunan Provincial Department of Education Excellent Young Research Project: Study on the Electron Transfer Mechanism of Humic Acid Mediated Reduction and Remediation of Valence Heavy Metal Pollution (21B0715),2021-2023, project leader.**<br>**[2].Hunan Provincial Natural Science Youth Fund Project: Research on the Mechanism of Microbial Remediation of Polybrominated Diphenyl Ether** | | | | | | | |

**Contaminated Sediment Enhanced by Biochar (2020JJ5019),2020-2022, project leader.**

**[3].Hunan Provincial Department of Education Scientific Research General Project: Based on3Dgold nanocluster modified gold electrodes for simultaneous sensing and detection of heavy metals in water environmentCdandPbresearch (17C0305),2017-2019, project leader.**

**[4].2019Second batch of industry-university cooperation and collaborative education projects by the Ministry of Education in 2019: Construction and reform of the hydraulics course aimed at engineering education professional certification (201902099003),2020-2021, project leader.**

**[5].Research Project on Teaching Reform in Hunan Province's Ordinary Higher Education Institutions: "Hydraulics" under the Background of First-Class Major Construction and Engineering Education Professional Certification“Golden Course” Teaching Reform Research (HNJG-2022-0995), 2022-2024, project leader.**

**[6].National Natural Science Foundation General Project: Modified Shell Powder/Ce-N-$TiO_2$Research on the Mechanism of Adsorption and Photocatalytic Degradation of Typical Dissolved Organic Phosphorus (42071122),2021-2024, participation.**

**[6].National Natural Science Foundation General Project:LDH/MIL-101(Fe)/La-Fe-$TiO_2$molecular design synthesis and its removal mechanism study for typical nitrogen-containing heterocyclic compounds (52370074),2024-2027, participation.**

**[7].Hunan Provincial Natural Science Foundation General Project: Migration, Transformation, Source Control, and Mechanism of Heavy Metal Antimony in Arsenic-Alkali Slag from Abandoned Land in Typical Antimony Mining Areas (2021JJ30080),2021-2023, participation.**

**Research paper**

**Yuanping Li[#], Yuqing Liu[#], Yihuan Liu[#], Yaoning Chen[*], Li Chen, Haoqin Yan, Yanrong Chen, Fangting Xu, Meiling Li, Linshenzhang Li. Modification of sludge biochar by $MnO_2$ to degrade methylene blue: Synergistic catalysis and degradation mechanisms. Journal of Water Process Engineering. 2022,48:102864.DOI: 10.1016/j.jwpe.2022.102864（SCI 2区，一作）**

**Yuanping Li[#], Yanrong Chen[#], Yaoning Chen[#*], Yanxin Wu, Chun Zhang, Zhen Peng, Yihuan Liu, Sha Wang, Ran Xu, Ziping Zeng. Effects of physico-chemical parameters on *Actinomycetes* communities during composting of agricultural waste. Sustainability, 2019,11(8):2229-2242（SCI 3区，一作）**

**Liyuan Ping[*], Zhang Wei, Tang Lin, Zhang Yi, Chen Yaoning, Zeng Guangming. Research Progress on the Detection and Analysis of Herbicide Toxicity in Environmental Media. Environmental Science and Technology, 2017, 40(12): 104-111（CSCD, first author, corresponding author）**

**Yaoning Chen[#*], Mengyang Zhao[#], Yuanping Li[#*], Yihuan Liu, Li Chen, Hongjuan Jiang, Hui Li, Yanrong Chen, Haoqin Yan, Suzhen Hou, Longbo Jiang. Regulation of tourmaline-mediated Fenton-like system by biochar: Free radical pathway to non-free radical pathway. Journal of Environmental Management.**

**2023,344:118497. DOI: 10.1016/j.jenvman.2023.118497.（SCI 1区，共同通讯作者，并列第一）**

**Li Chen[#], Yaoning Chen[#*], Yuanping Li[#*], Yihuan Liu, Hongjuan Jiang, Hui Li, Yu Yuan, Yanrong Chen, Bin Zou. Improving the humification by additives during composting: A review. Waste Management. 2023,158:93-106.（SCI 1区，共同通讯作者，并列第一）**

**Yaoning Chen[#*], Hongjuan Jiang[#], Yuanping Li[#*], Yihuan Liu, Yanrong Chen, Li Chen, Xinli Luo, Ping Tang, Haoqin Yan, Mengyang Zhao, Yu Yuan, Suzhen Hou. A critical review on EDTA washing in soil remediation for potentially toxic elements (PTEs) pollutants. Reviews in Environmental Science and Bio-Technology. 2022,21:399-423.（SCI 1区，共同通讯作者，并列第一）**

**Yaoning Chen[#*], Xinli Luo[#], Yuanping Li[#*], Yihuan Liu, Li Chen, Hongjuan Jiang, Yanrong Chen, Xiaoli Qin, Ping Tang, Haoqin Yan. Effects of $CaO_2$ based Fenton-like reaction on heavy metals and microbial community during co-composting of straw and sediment. Chemosphere. 2022,301:134563. DOI: 10.1016/j.chemosphere.2022.134563.（SCI 2区，共同通讯作者，并列第一）**

**Yaoning Chen[#*], Ping Tang[#], Yuanping Li[#*], Li Chen, Hongjuan Jiang, Yihuan Liu, Xinli Luo. Effect of attapulgite on heavy metals passivation and microbial community during co-composting of river sediment with agricultural wastes. Chemosphere. 2022,299:134347.DOI: 10.1016/j.chemosphere.2022.134347.（SCI 2 area, co-corresponding authors, co-first authors）**

**Yihuan Liu[#], Yaoning Chen[#*], Yuanping Li[#*], Li Chen, Hongjuan Jiang, Hui Li, Xinli Luo, Ping Tang, Haoqin Yan, Mengyang Zhao, Yu Yuan, Suzhen Hou. Fabrication, application, and mechanism of metal and heteroatom co-doped biochar composites (MHBCs) for the removal of contaminants in water: A review. Journal of Hazardous Materials. 2022,431:128584. DOI: 10.1016/j.jhazmat.2022.128584.（SCI 1 area, co-corresponding authors, jointly first）**

**Yanrong Chen[#], Yaoning Chen[#*], Yuanping Li[#], Yihuan Liu, Hui Li, Hongjuan Jiang, Xinli Luo, Ping Tang, Li Chen, Haoqin Yan. Evolution of humic substances and the forms of heavy metals during co-composting of rice straw and sediment with the aid of Fenton-like process. Bioresource Technology. 2021,333:125170. DOI: 10.1016/j.biortech.2021.125170.（SCI 1区，并列第一）**

**Yaoning Chen[#*], Linshenzhang Li[#], Yuanping Li[#*], Yihuan Liu, Yanrong Chen, Hui Li, Meiling Li, Fangting Xu, Yuqing Liu. Preparation of a double-network hydrogel based on wastepaper and its application in the treatment of wastewater containing copper(II) and methylene blue. RSC Advances. 2021,11: 18131-18143.（SCI Zone 3，co-corresponding authors, co-first authors）**

**Yaoning Chen[#*], Meiling Li[#], Yuanping Li[#], Yihuan Liu, Yanrong Chen, Hui Li, Linshenzhang Li, Fangting Xu, Hongjuan Jiang, Li Chen. Hydroxyapatite modified sludge-based biochar for the adsorption of $Cu^{2+}$and $Cd^{2+}$: Adsorption behavior and mechanisms. Bioresource Technology. 2021,321:124413. DOI: 10.1016/j.biortech.2020.124413.（ESIHighly Cited Paper（Highly Cited Paper）, SCI 1area, tied for first）**

**Yaoning Chen*, Zhen Peng, Yuanping Li*, Yihuan Liu, Yanrong Chen, Yanxin Wu, Ran Xu, Sha Wang, Ziping Zeng. Photocatalytic performance of Z-scheme $SrCO_3$-$SrTiO_3/Ag_3PO_4$ heterojunction for tetracycline hydrochloride degradation. Journal of Materials Science. 2021,56:4356-4365（SCI 2 area, co-corresponding authors, tied for first）**

**Yaoning Chen*, Yihuan Liu, Yuanping Li*, Li Zhao, Yanrong Chen, Hui Li, Yuqing Liu, Linshenzhang Li, Fangting Xu, Meiling Li. Functional wastepaper-montmorillonite composite aerogel for $Cd^{2+}$ adsorption. Environmental Science and Pollution Research. 2020,（SCI 3 area, co-corresponding authors, tied for first）**

**Yaoning Chen*, Ran Xu, Yuanping Li*, Yihuan Liu, Yanxin Wu, Yanrong Chen, Jiachao Zhang, Sha Chen, Hanshuang Yin, Ziping Zeng, Sha Wang, Zhen Peng. $La(OH)_3$-modified magnetic $CoFe_2O_4$ nanocomposites: A novel adsorbent with highly efficient activity and reusability for phosphate removal. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 2020,599:124870.（SCI 3 area, co-corresponding authors, tied for first）**

**Yaoning Chen*, Sha Wang, Yuanping Li*, Yihuan Liu, Yanrong Chen, Yanxin Wu, Jiachao Zhang, Hui Li, Zhen Peng, Ran Xu, Ziping Zeng. Adsorption of Pb(II) by tourmaline-montmorillonite composite in aqueous phase. Journal of Colloid and Interface Science, 2020, 575:367-376（SCI 2 area, co-corresponding authors, co-first authors）**

**Yaoning Chen*, Ziping Zeng, Yuanping Li*, Yihuan Liu, Yanrong Chen, Yanxin Wu, Jiachao Zhang, Hui Li, Ran Xu, Sha Wang, Zhen Peng. Glucose enhanced the oxidation performance of iron-manganese binary oxides: Structure and mechanism of removing tetracycline. Journal of Colloid and Interface Science, 2020, 573:287-298（SCI 2 area, co-corresponding authors, tied for first）**

**Yaoning Chen*, Yuqing Liu, Yuanping Li*, Yanxin Wu, Yanrong Chen, Yihuan Liu, Jiachao Zhang, Fangting Xu, Meiling Li, Linshenzhang Li. Synthesis, application and mechanisms of Ferro-Manganese binary oxide in water remediation: A review. Chemical Engineering Journal, 2020, 388:124313–124327（SCI 1 area, co-corresponding authors, tied for first）**

**Yaoning Chen, Weiyu Liang, Yuanping Li*, Yanxin Wu, Yanrong Chen, Wei Xiao, Li Zhao, Jiachao Zhang, Hui Li. Modification, application and reaction mechanisms of nano-sized iron sulfide particles for pollutant removal from soil and water: A review. Chemical Engineering Journal, 2019, 362:144–159（ESI Highly Cited Paper（Highly Cited Paper）, SCI 1 area, co-corresponding authors, tied for first）**

**Yuan Yu, Liu Yexing, Zeng Yuwei, Zhang Wenlu, Li Yuanping*. Current Status of Rural Domestic Sewage Treatment and New Smart Management Models. Journal of Hunan City University (Natural Science Edition), 2020, 29(2): 24-27（Corresponding author, first four are undergraduates）**

**Liyuanping, Zou Bin, Jia Shunyao, Chen Pengyu, Zhu Chenyang, Liu Zhengwei, Zhou Tianyun, Zhao Yi, Zhu Li.Preparation of sludge-based biochar and its application in environmental pollution control.Journal of Hunan City University (Natural Science Edition), 2023, 32(6): 26-30(First author, other authors are undergraduates)**

**Educational Reform Paper**

**[1].Li Yuanping,Chen Yaoning. An Analysis of the Importance and Construction Ideas of the "Golden Course" in Local Application-oriented Undergraduate Colleges[J].Educational Teaching Forum,2020,50）:254-256.**

**[2].Li Yuanping,Chen Yaoning. Exploration of the Construction of First-Class Undergraduate Courses——Taking the Reform of Hydraulics Teaching as an Example[J].Modern Business Trade and Industry,2021,42（20）:161-162.**

**Patent**

**[1].Chen Yaoning, Chen Yanrong, Li Yuanping, Zeng Guangming, Ma Li, Yuan Xingzhong, Yan Ming, Wu Yanxin, Zhang Jiachao. Method for Remediating2,2',4,4'-Tetrabromodiphenyl Ether Contaminated Soil[P].Invention Patent, Patent Number:ZL 2016 1 0894681.X, Authorization Announcement Date:2019.12.6.**

**[2].Li Yuanping, Zou Bin, Jia Shunyao, Yuan Yu, Chen Yaoning, Zhang Wei, Chen Pengyu, Zhu Chenyang, Liu Zhengwei.Electrochemical sensors for detecting cadmium ions and lead ions and their preparation methods and applications[P].Invention patent, application number:202211648972.2 , application date:2022.12.21.**

**[3]Li Yuanping, Jia Shunyao, Zhang Wei, Chen Yaoning, Zhou Tianyun, Liu Zhengwei, Zhu Li, Peng Yishun, Zhao Yi.Method for detecting polybrominated diphenyl ethers in water using biochar electrochemical sensors[P].Invention patent, application number:202311076966.9 , application date:2023.8.24。**

**[4]Li Yuanping, Jia Shunyao, Chen Yaoning, Zou Bin, Liu Zhengwei, Zhou Tianyun, Zhu Li, Zhao Yi, Peng Yishun.A strain of aerobic defensive Pseudomonas and its application[P].Invention patent, application number:202311133588.3, application date:2023.9.4**

**Scientific Research Award**

**[1].Li Yuanping,Zhang Wei,Tang Lin. Research Progress on the Detection and Analysis of the Herbicide Toxicity of Glyphosate in Environmental Media.Third Prize of the 3rd Excellent Academic Achievement Award in Natural Sciences of Yiyang City,2019.**

**[2].Li Yuanping,Chen Yanrong,Chen Yaoning. The influence of physicochemical factors on actinobacterial communities during the composting process of agricultural waste.Outstanding Academic Achievement Award of the 4th Natural Science in Yiyang City,2021.**

**Teaching Award**

**[1].Second Prize in the Individual Competition of the Second Micro Course Competition of Hunan Province for Higher Education,2017.02.**

**[2].2019was awarded the title of Excellent Teacher by Hunan City University.**

**[3].Based on3Dgold nanocluster modified gold electrodes for simultaneous sensing and detection of heavy metalsCdandPbin water environments.The 3rd"Deep**

**Water Cup”National College Student Water Supply and Drainage Technology Innovation Competition, Third Prize,2019.(First Supervisor)**

**[4].The 3rd National College Student Municipal Environmental Innovation Practice Ability Competition“Beijing Enterprises Water Group Cup”Outstanding Instructor2021.11。**

**[5].Hunan Zhongyi Environmental Protection Co., Ltd.. “Chuang Qingchun”Hunan Province College Student Entrepreneurship Competition, Bronze Award,2016. (Second Advisor)**

**Published Monographs/Books**

**[1].Li Yuanping,Chen Yaoning. Research on the Application of Gene Sensing and Immune Technology in the Detection of Environmental Pollution Control Processes[M].Changsha: Central South University Press, 2022.ISBN978-7-5487-5113-7**

**Engineering background**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Name** | **Chen Wen** | **Gender** | **man** | **Date of birth** | **1970.03** | **Job title** | **Senior Engineer** |
| **Highest degree** | **graduate student** | **highest degree** | **Master's degree** | **Email** | **75732071@qq.com** | | |

**Educational background**

**1988.09-1992.07, Hunan University, School of Civil Engineering, Bachelor of Engineering**

**2001.09-2004.05, Huazhong University of Science and Technology, Master of Engineering**

**Scientific Research and Teaching Reform Project**

**[1].Hosted the conclusion of the Hunan Provincial Department of Education project "Research on the Treatment of Pathogenic Microorganisms in Air Conditioning Cooling Water" Xiangcai Education Instruction[2008]71number**

**[2].Hosted the conclusion of the Hunan Province Construction Science and Technology Plan project "Research on the Treatment of Pathogenic Microorganisms in Recirculating Cooling Water" (Xiangjian Science and Technology [2008] No. 459)**

**[3].The supervisor guided the students to complete the Hunan Province College Students' Research and Innovation Project: Hunan City University Provincial Project "Detection and Prevention of Bacteria in Solar Water Heaters at Medium and Low Temperatures."**

**[4].Hosted the conclusion of the project by the China Higher Education Society“The 12th Five-Year Plan”Research project on the construction of on-campus production internship bases for civil engineering majors in application-oriented undergraduate colleges (general project)**

**Research paper**

**[1].Detection and Prevention of Bacteria in Solar Water Heaters at Medium and Low Temperatures[J].Research on Urban Construction Theory,2011.6, First**

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| **Author.**<br>**[2].A Study on the Kinetics of Cadmium Adsorption by Iron Sand[J]. 《Environmental Science and Technology》,2007.9,First Author.**<br>**[3].BisphenolABehavioral Study in the Coagulation Process of Drinking Water[J]. 《China High-tech Enterprises》,2008.9,First Author.** |
| **Educational Reform Paper** |
| **None** |
| **Scientific Research Award** |
| **None** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Wen Zhifang** | **Gender** | **Woman** | **Date of birth** | **1983.08** | **Job title** | **Senior Engineer** |
| **Highest degree** | **undergraduate** | **highest degree** | **Bachelor** | **Email** | **183467558@qq.com** | | |
| **Educational background** | | | | | | | |
| **2002.09-2007.07, Hunan City University, Bachelor of Engineering** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **None** | | | | | | | |
| **Research paper** | | | | | | | |
| **[1].Wen Zhifang,Wang Jian.The Application of Graph Algorithms in Hydraulic Calculations of Building Water Supply and Drainage[J].China Water Transport2014.11:379**<br>**[2].Wen Zhifang.Discussion on How to Apply Water-Saving Measures in Building Water Supply and Drainage Design[J].“Science and Technology Innovation and Application,”2014,36:132.**<br>**[3].Wang Jian,Wen Zhifang,Li Bo. Pile and Soil-Rock Mass Mechanical Property Based on Modified Constitutive Model[J].《Electronic Journal of Geotechnical Engineering》，2014,p2057-2070,v19i.** | | | | | | | |
| **Educational Reform Paper** | | | | | | | |
| **None** | | | | | | | |
| **Scientific Research Award** | | | | | | | |

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| **None** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **Hosted the Civil Engineering Building of Hunan City University; Yiyang Innovation and Entrepreneurship Service Center·Public Rental Housing; Central South E-commerce Park1#、2#Office Building; Phase I of Taoyang Jinyu Garden in Hunan Province; Xinhuyuan·Times Square Phase I and II; Changyi Road Shantytown Renovation Project--Guofu Community; Shunde City Yiyang Home Furnishing Expo Center and Building Materials Market; Phase I Project of Nanyan Water Supply Company San Shui Plant; Tianyi Wood Country Phase I Exhibition Hall; Hainan Flavor King Dong'ao Base; China Nuclear Tixiang Mingyuan Phase II; Jinshui Sunshine; Yangfan Vocational Technical School; Hunan Wangjia Hangxiao Steel Structure Factory Area, etc.Over200 design projects.** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Zhou Jun** | **Gender** | **man** | **Date of birth** | **1984.08** | **Job title** | **Associate Professor** |
| **Highest degree** | **graduate student** | **highest degree** | **Doctorate** | **Email** | **a82800828@163.com** | | |
| **Educational background** | | | | | | | |
| **2003.09-2007.06, Hunan City University, Department of Urban Construction, Bachelor of Engineering**<br>**2008.09-2011.03, Anhui University of Technology, Master of Engineering**<br>**2014.09-2023.10, Wuhan University of Technology, School of Civil Engineering and Architecture, Doctor of Engineering degree** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1] Hunan Provincial Natural Science Foundation Joint Fund: Research on the operating conditions and membrane characteristics of two-phase distributed biological trickling filters for treating methyl mercaptan (No:2022JJ50284),2022-2024, project leader.** | | | | | | | |

**[2] Hunan Provincial Department of Education Scientific Research Project General Topic: Study on the Effectiveness of Micro-aeration Three-dimensional Electrolytic Fixed Bed in Treating Catering Wastewater (Project No: 19C0354), 2019-2021, Project Leader.**

**[3] Hunan City University Science and Technology Project: Preparation and Experimental Research of Fixed Three-Dimensional Electrolytic Method Electrode Particles (Number: 2016xj13), 2016-2018, Project Leader.**

**[4] General project of scientific research from the Hunan Provincial Department of Education: Optimization study on the treatment of catering wastewater using three-dimensional electrolysis method (No. 15C0259),2015-2017, project leader.**

**[5] Yiyang City Science and Technology Program Project: Advanced Oxidation ——Experimental Study on the Treatment of Catering Waste by Three-Dimensional Electrolytic Combined Process, (Number: 2013ZJ33),2013-2015, Project Host.**

**[6] Hunan City University Science and Technology Project: Experimental Efficiency Study of Three-Dimensional Electrolytic Treatment of Catering Wastewater (No:2012xj007),2012-2014, project leader.**

**[7] Hunan City University Teaching Reform Project: Exploration and Practice of Core Quality Course Construction in Water Supply and Drainage Science and Engineering Major Based onOBE Concept (Xiangcheng Institute Teaching Document [2023]) No. 30，2023-2025，Project Leader.**

**[8] Ministry of Education's Department of Education's Industry-University Cooperation Collaborative Education Project: Research on the "Applied" Faculty Training Model for the Water Supply and Drainage Science and Engineering Major in Local Engineering Colleges under the New Engineering Background (No. 201902099007), 2020-2021, Project Leader.**

**[9] Hunan City University Teaching Reform Project: Local Engineering Colleges' Water Supply and Drainage Science and Engineering Major“Engineering and Innovation” Professional Competency Training System Construction (Xiangcheng Institute Document No. [2019]),2019-2021, project leader.**

**[10] Research on the Construction of a "Project-Based" Practical Teaching System for the Water Supply and Drainage Science and Engineering Major at Hunan City University (Xiangcheng Institute Document No. 2016）51号），2016-2018，Project Leader.**

**[11] Hunan City University Teaching Reform Project: Reform and Practice of the "Water Engineering Economics" Course Based on the Application-oriented Talent Training Model (Xiangcheng Institute Document No. 2013), 44th, 2013-2015, Project Leader.**

**Research paper**

**[1] Zhou Jun, Hu Xiaobing. Deep Treatment of Fermentation Pharmaceutical Wastewater by Three-Dimensional Electrolysis[J]. Industrial Water Treatment, 2014, 34(06): 49-52.**

**[2] Zhou Jun, Xiong Ren, Wen Min, Cheng Xi. ElectricFenton method for pretreating catering wastewater[J]. Journal of Environmental Engineering, 2015,**

**9(12): 5887-5890.**

**[3] Zhou Jun, Yan Hengzhen, Hou Kanglong, Li Jixia, Zeng Yao. Research on the Treatment of Catering Wastewater by Fixed Particle Three-Dimensional Electrolysis[J]. China Water Supply and Drainage, 2016, 32(07): 78-81.**

**[4] Zhou Jun, Jiao Yuni, Chen Xiangyu, Liu Xiaoqian. Research Status and Prospects of Catering Wastewater Treatment Methods[J]. Journal of Hunan City University(Natural Science Edition), 2016, 25(06): 73-75+78.**

**[5] Zhou Jun, Yang Fan, Deng Zhening, Li Jian. A Comparative Study of Fixed Three-Dimensional Electrode Method and Two-Dimensional Electrode Method for Treating Catering Wastewater[J]. Journal of Hunan City University(Natural Science Edition), 2018, 27(01): 66-70.**

**[6] Jun Zhou, Ying H. Jiang, Wen H. Li and Xiao Y. Liu. Comparison and analysis of several wet scrubbing solutions to remove methyl mercaptan. Journal of Environmental Science and Health, Part A Toxic/Hazardous Substances and Environmental Engineering, 2018, 53(9): 819-824.**

**[7] Jun Zhou, Ying H. Jiang, Wen H. Li and Xiao Y. Liu. Kinetics and removal formula of methyl mercaptan by ethanol absorption without neglecting solute accumulation. Journal of Environmental Science and Health, Part A Toxic/Hazardous Substances and Environmental Engineering, 2018, 53(14), 1229-1234.**

**[8] Yang Ying, Zhou Jun, Li Lu, Zhou Yan Yi, Zheng You Chen. Research Status and Prospects of Electrochemical Treatment of Difficult-to-Degrade Wastewater[J]. Journal of Hunan City University(Natural Science Edition), 2020, 29(06): 73-78.**

**[9] Zhou Jun, Guo Qianying, Yang Ying, Liu Baisheng, Liu Fan, Zheng Youchen. Comparison of Different Anode Plates in Three-Dimensional Electrolytic Fixed Bed Treatment of Catering Wastewater[J]. China Water Supply and Drainage, 2020, 36(23): 58-63.**

**[10] Zhou Jun, Zhou Yanyi, Zheng Youchen, Li Yayi, Li Jiawei, Wang Yiyi, Zha Huanhuan, Xiang Xianan. Research Progress on Particle Electrodes in the Treatment of Hard-to-Degrade Wastewater by Three-Dimensional Electrolysis[J]. Journal of Hunan City University(Natural Science Edition), 2023, 32(03): 72-78.**

**Educational Reform Paper**

**[1] Zhou Jun, Zhang Wei. Construction and Reform of the Course "Water Engineering Economics"[J]. Value Engineering, 2013, 32(14): 237-239.**

**[2] Zhou Jun, Zhang Wei, Yan Hengzhen, Deng Jie. Discussion on Case Teaching in the Course of Water Engineering Economics[J]. Era Education, 2014, 23: 81+83.**

**[3] Zhou Jun, Zhang Chun, Wang Aihe, Wang Caiwen, Deng Yumei. Construction of a School-Enterprise Cooperation Practice Teaching System Based on Engineering Capability Training[J]. Value Engineering, 2017, 36(33): 186-187.**

**[4] Zhou Jun, Zhang Chun, Wang Caiwen, Li Hao. Research on the Construction of Engineering Faculty Teams in Local Undergraduate Colleges[J]. Modern Vocational Education, 2018(13): 35.**

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| **[5] Zhou Jun, Zhang Chun, Wang Caiwen, Jiang Haiyan, Deng Yumei. Research on the Practical Ability Training of Young Teachers in Local Undergraduate Colleges——Taking Hunan City University as an Example[J]. Industry and Technology Forum, 2019, 18(15): 249-250.** |
| **Patent** |
| **[1] Zheng Youchen, Zhou Jun et al. Particle electrode filler fixing device[P]. Utility model patent, patent number:ZL 2019 2 1300542.5, authorization announcement date:2020.04.17.**<br>**[2] Zhou Jun, Li Lili, et al. A temperature control water-saving device based onPLC [P]. Utility model patent, patent number: ZL 2020 2 2051955.3, authorization announcement date: 2021.06.08.**<br>**[3] Zhou Jun, Li Yayi, et al. Suspended three-dimensional electrolytic fixed bed[P]. Utility model patent, patent number:ZL 202022546959.9, authorization announcement date:2021.07.06.** |
| **Scientific Research Award** |
| **[1] Zhou Jun. ElectricFentonmethod for pretreating catering wastewater, Third Prize of the Second Excellent Academic Achievement Award in Natural Sciences of Yiyang City,2016。**<br>**[2] Zhou Jun. Research on the Treatment of Catering Wastewater by Fixed Particle Three-Dimensional Electrolysis Method, Second Prize of the Third Excellent Academic Achievement Award in Natural Science of Yiyang City,2019。**<br>**[3] Zhou Jun. Comparison of three-dimensional electrolytic fixed bed treatment of catering wastewater with different anode plates, Second Prize of the 5th Excellent Academic Achievement Award in Natural Science, Yiyang City,2023。** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **None** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Wang An** | **Gender** | **man** | **Date of birth** | **1982.01** | **Job title** | **Lecturer** |

| | | | | | |
|---|---|---|---|---|---|
| Highest degree | graduate student | highest degree | Doctorate | Email | 75814470@qq.com |

**Educational background**

2014.09-2020.06, Central South University, School of Metallurgy and Environment, PhD student

2008.09-2011.06, Central South University, School of Metallurgical Science and Engineering, Master's Degree Student

2001.09-2005.06, Central South University, School of Metallurgical Science and Engineering, Bachelor's Degree

**Scientific Research and Teaching Reform Project**

1.Hunan Provincial Natural Science Foundation-Provincial and Municipal Joint Fund,2023JJ50347, Research on the Recovery of Metallic Arsenic from Waste Acid by Iodine-Copper Synergistic Reduction Method,2023/01-2025/12,50,000yuan, in progress, hosted

2.General project of the Hunan Provincial Department of Education,23C0331, basic research on the synergistic reduction and recovery of metallic arsenic in high sulfuric acid media,2023/12-2025/12,100,000 yuan, in progress, hosted by

**Research paper**

[1] An Wang, Kanggen Zhou*, Xuekai Zhang, Dingcan Zhou, Changhong Peng, Wei Chen*. Arsenic removal from highly-acidic wastewater with high arsenic content by copper-chloride synergistic reduction. Chemosphere, 238, 124675, 2020

An Wang, Kanggen Zhou*, Xuekai Zhang, Dingcan Zhou, Changhong Peng, Wei Chen*. Reductive removal of arsenic from waste acid containing high-acidity and arsenic levels through iodide and copper powder synergy. Chemical Engineering Journal, 373, 23-30, 2019

[3] Kanggen Zhou, An Wang, Duchao Zhang*, Xinwang Zhang, Tianzu Yang. Sulfuric acid leaching of Sm-Co alloy waste and separation of samarium from cobalt, Hydrometallurgy, 174, 66-70, 2017

[4] Jianfeng Wen, An Wang, Fang Xia, Dong Xu, Tianzu Yang*. Pretreatment of Se-Containing Lead Matte by Alkaline Pressure Leaching, Journal of Sustainable Metallurgy, 3, 429-440, 2017

**Educational Reform Paper**

None

**Scientific Research Award**

None

**Teaching Award**

None

**Published Monographs/Books**

None

**Engineering background**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Name** | **Wang Yang** | **Gender** | **man** | **Date of birth** | **1980.05** | **Job title** | **Lecturer** |
| **Highest degree** | **graduate student** | **highest degree** | **Doctorate** | **Email** | **environmentor@foxmail.com** | | |

**Educational background**

**2010.09-2015.06, Central South University, School of Geosciences and Information Physics, Geological Engineering, Doctor of Engineering**

**2003.09-2006.07, Royal Institute of Technology, School of Architecture and the Built Environment, Environmental Engineering, Master of Science**

**1998.09-2002.07, College of Science, Hunan Agricultural University, Major in Biotechnology**

**Scientific Research and Teaching Reform Project**

**[1].Hunan Provincial Department of Science and Technology Joint Project: Research on the Formation Mechanism of Mercury Pollution in Groundwater of Solid Waste Landfills in the Dongting Lake Area and Health Risk Assessment (2022JJ50274),2022-2024，50,000 yuan, project leader;**

**[2].Hunan Provincial Department of Education General Project: Source and Migration Transformation Mechanism of Plant Mercury in the Yuanjiang Section of the Dongting Lake Area (22C0509）2023-2024，100,000 yuan, Project Leader;**

**[3].Yiyang City Science and Technology Bureau Applied Basic Research and Soft Science Research Plan: Suitability analysis and treatment technology for solid waste landfills in the concealed karst areas of the Dongting Lake region,（2022）Document No. 108, project leader.**

**Research paper**

**[1].Liu Yimin, Wang Yang, Wang Ji, Cai Xiongf, Zheng Jiawei, Analysis of Groundwater Pollution Characteristics and Health Risk Assessment of Valley-type Landfills[J], Environmental Chemistry, 2022, 41(8): 2540-2550**

**[2].Yang Wang; Keneng Zhang; Yonggui Chen; Xingzhi Zhou; Fuxin Jin; Prediction on**

**contaminant migration in aquifer of fractured granite substrata of landfill[J], Journal of Central**

**South University, 2013, 20(11): 3193-3201**

**[3].Yang Wang; Keneng Zhang; Yonggui Chen; Separation and Recovery of Gold, Copper and**

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| **Silver from Waste Acid Residues by a Novel Alkaline Dechlorization-Acid Leaching Process[J], Asian Journal of Chemistry, 2015, 27(1): 292-296;**<br><br>**[4].Wang Yang, Li Shixiong, Zhu Xiangdong, Yu Zhiquan, New process for preparing standard lead and zinc concentrates from cyanide tailings derivatives[J], Journal of Nonferrous Metals, 2013, 23(01): 247-253** |
| **Educational Reform Paper** |
| **None** |
| **Scientific Research Award** |
| **First Prize in Science and Technology of the Nonferrous Metal Industry of China,2016** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **The second national pollution source census project in Xingyi City, Qiannan Prefecture**<br><br>**Guiyang Third Soil Pollution Site Remediation Project** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Wang Caiwen** | **Gender** | **man** | **Date of birth** | **1981.09** | **Job title** | **Lecturer** |
| **Highest degree** | **graduate student** | **highest degree** | **Master's degree** | **Email** | **469862473@qq.com** | | |
| **Educational background** | | | | | | | |
| **2001.09-2005.07, Changsha University of Science and Technology, Bachelor of Engineering**<br><br>**2005.09-2008.07, Changsha University of Science and Technology, Master of Engineering degree** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1].Hunan Provincial Department of Education Teaching Reform Project: Research and Practice on the Integration of Industry, Academia, and Research in the Water Supply and Drainage Science and Engineering Major from the** | | | | | | | |

**Perspective of Excellent Engineers (Xiang Jiao Tong[2015]118 No.-420）2015-2018, Project Leader.**

**[2].Hunan City University Teaching Reform Project: Research on the Cultivation of Applied Talents in Water Supply and Drainage Science and Engineering through Industry-Academia-Research Integration (Xiangcheng Institute Document No. 2016), No. 80,2016-2018, project leader.**

**[3].Ministry of Education Industry-University Cooperation Collaborative Education Project: Research on the Practice Teaching System of Industry-University-Research from the Perspective of Excellent Engineers,2019-2020, Project Leader.**

**[4].General project of Hunan Provincial Department of Education: Characteristics of the co-precipitation treatment process of antimony-containing wastewater and the mechanism of antimony form regulation (Xiang Jiao Tong[2020]264 No., project number20C0343),2020-2023, project leader.**

**[5]Hunan Provincial Department of Education General Project: Research on the Photocatalytic Degradation of Typical Persistent Organic Pollutants Controlled by Electric Field with Carbon Nanofibers (Xiang Jiao Tong[2023]361 No., Project Number23C0325),2023-2025, Project Leader.**

**Research paper**

**Wei Zhang, Nan Li, Caiwen Wang, Guangchao Li, Julong Sun, Shumin Zhu*. Elimination of micropollutants by the solar/chlorine process: contribution of reactive species and formation risk of NDMA. Environmental Science Water Research & Technology, 2022, 8(6), 1252-1260.**

**Educational Reform Paper**

**[1].Wang Caiwen.Reform and Practice of Graduation Design Teaching under the Background of Engineering Education Accreditation for Water Supply and Drainage Science and Engineering [J].Modern Property,2016,43（18）,:217-218.**

**[2].Wang Caiwen.Construction and Practice of the Practical Teaching System for Water Supply and Drainage Science and Engineering from the Perspective of Outstanding Engineers[J]. Modern Property,2017,10:158-159.**

**[3].Wang Caiwen.Exploration of Practical Teaching Reform for Cultivating Excellent Engineers in the Field of Water Supply and Drainage Science and Engineering through the Integration of Industry, Academia, and Research[J]. Education,2016,10（8）：130.**

**[4].Wang Caiwen.Education Strategy for the Integration of Industry and Academia in Water Supply and Drainage Science and Engineering [J].Examination Weekly2017,100，26**

**[5].Wang Caiwen.Teaching Reform of Water Supply and Drainage Pipeline Network System Course Based on Excellent Engineer Training [J].Science and Technology Economy Guide,2019,27（32）:158.**

**Patent**

**None**

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| **Scientific Research Award** |
| **[1].Study on the adsorption and photocatalytic degradation of chlorobenzene using multi-walled carbon nanotubes loaded withTiO2, awarded the third prize of Hunan Provincial Science and Technology Progress Award (ranked fourth),2016 year December..** |
| **Teaching Award** |
| **[1]. Research and practice on the talent training model of the Water Supply and Drainage Science and Engineering major oriented to "engineering capability output", third prize of Hunan Provincial Teaching Achievement Award (ranked fifth),2016 year January** |
| **Published Monographs/Books** |
| **[1].Water Pumps and Pump Stations,Associate Editor, Peking University Press, 2014 year** |
| **Engineering background** |
| **[1].Design of construction drawings for the water supply plant in Jindong Management District, Yongzhou,2016year**<br>**[2].The design of the outdoor supporting sewage treatment station in the first phase of the Yuanjiang High-tech Zone Food Industry Park,2019year**<br>**[3].The construction drawing design of the water supply booster pump station on Jinpen North Road in Taojiang County Economic Development Zone,2020year** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Jiang Haiyan** | **Gender** | **Woman** | **Date of birth** | **1988.1** | **Job title** | **Lecturer** |
| **Highest degree** | **graduate student** | **highest degree** | **Master's degree** | **Email** | **125890109@qq.com** | | |
| **Educational background** | | | | | | | |
| **2006.09-2010.07, Shenyang University of Technology, School of Chemical and Environmental Engineering, Bachelor of Engineering**<br>**2010.09-2013.07, Nanhua University School of Urban Construction, Master's degree in Engineering**<br>**2021.09-2022.07, Visiting Scholar at the College of Civil Engineering, Hunan University** | | | | | | | |

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| **Scientific Research and Teaching Reform Project** |
| **[1].General project of the Education Department: Preparation of sodium alginate/graphene oxide composite membrane and its study on the adsorption performance ofCu(II) (16C0303),2016-2020, project leader.**<br><br>**[2].Yiyang City Science and Technology Project:Cu(II)ion-imprinted composite membrane forCu(II)recognition and mechanism(Number:2015JZ24),2015-2019, project leader.** |
| **Research paper** |
| **[1].Jiang Haiyan,Zhou Shukai,Zeng Guangming. The adsorption kinetics and thermodynamics of insoluble humic acid onU(VI).[J].Journal of Safety and Environment Engineering,2015,15(1):193~198.(CSCD)**<br><br>**[2].Jiang Haiyan,Zhang Wei,Zhou Shukai. Adsorption performance and mechanism of humic acid modified attapulgite for U( VI) and its mechanism[J].Journal of Environmental Engineering,2015, 9(2):705~710.(CSCD)**<br><br>**[3].Jiang Haiyan,Duan Yi,Liu Yuqi. Activation of calcined kaolin with persulfate for the removal of tetracycline from wastewater[J].Journal of Environmental Engineering,2020, 14(9):2494~2550.(CSCD)**<br><br>**[4].Jiang Haiyan,Duan Yi,Wang Aihe.Study on the performance of cross-linked sodium alginate - hydroxyethyl cellulose composite membrane for the adsorption of Cu(II) in water[J].Journal of Hunan City University(Natural Science Edition),2020, 29(1):75~78.**<br><br>**[5]. Haiyan Jiang, Yi Duan, Hao Li, Aihe Wang. New insight into highly efficient removal of tetracycline by calcined hydroxyapatite activated peroxymonosulfate: The role of calcium carbonate and phosphate group [J]. Journal of Water Process Engineering, 2023, 55:104207.（SCI 2区，一作）** |
| **Educational Reform Paper** |
| **[1].Jiang Haiyan,Zhang Wei.Discussion on the Reform of Practical Teaching in Water Supply and Drainage Science and Engineering Based on the Registered Engineer System[J].Science and Technology Innovation Herald, 2015, 4: 158-159.**<br><br>**[2].Jiang Haiyan,Wang Aihe,Li Hao. The Dilemmas and Coping Strategies of Water Treatment Biology Courses in Application-oriented Undergraduate Institutions[J].EducationTeaching Forum,2020,32(8):315-316.** |
| **Patent** |
| **[1].Jiang Haiyan, Duan Yi, Zhang Wei.A circulating treatment system for low-concentration cyanide-containing wastewater[P].Invention patent, patent number:ZL 2015 1 0885424.5, authorization announcement date:2018.6.8.** |
| **Scientific Research Award** |
| **None** |
| **Teaching Award** |

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|---|
| **[1].2015Won the first prize in the Modern Educational Technology Application Competition at Hunan City University.**<br><br>**[2].Household wastewater treatment and reuse system, Hunan Province College Students Challenge Cup, provincial third prize,2015.(Second advisor)**<br><br>**[3].The 3rd National College Student Municipal Environmental Innovation Practice Ability Competition“Beijing Enterprises Water Group Cup”Gold Medal Instructor2021.11.** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **None** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Deng Yumei** | **Gender** | **Woman** | **Date of birth** | **1989.11** | **Job title** | **Lecturer** |
| **Highest degree** | **graduate student** | **highest degree** | **Master's degree** | **Email** | **dym909163@168.com** | | |
| **Educational background** | | | | | | | |
| **2008.09-2012.07, Changsha University of Science and Technology, Bachelor of Engineering**<br><br>**2012.09-2014.07, Changsha University of Science and Technology, Master of Engineering degree** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1].Hunan Province Education Science“14th Five-Year Plan” Planning Topic: Research on the Construction of Evaluation Index System for High-Quality Applied Talent Training under the Background of Professional Certification,2023.03-2026.03, in progress, project leader.**<br><br>**General project of the Education Department:CTAB/The effect of ultrasonic combined treatment on the dewatering performance of activated sludge (18C0840),2018-2020, project leader.**<br><br>**[2].Hunan City University Science and Technology Project: The Impact of Microwave Conditioning on Sludge Dehydration Performance (Number: 2016xj14),2016-2017, project leader.** | | | | | | | |

**[3].Hunan City University Teaching Reform Project: Practice and Exploration of Laboratory Opening and Management Mechanism Based on Application-oriented Talent Training Model (Xiangcheng Institute Document No.2016）51号-12），2016-2017，Project Leader.**

**[4].National Natural Science Foundation General Project: Modified Shell Powder/Ce-N-TiO2Study on the Mechanism of Adsorption and Photocatalytic Degradation of Typical Dissolved Organic Phosphorus (42071122),2020-2024, participated.**

**[5].Hunan Provincial Department of Education Excellent Youth Project: Research on the Mechanism and Kinetics of Sulfur Dioxide Reduction and Decomposition of Zinc Cadmium Ferrite (No:16B049),2016-2019，（Ranked second).**

**Research paper**

**[1].Yumei Deng; Jie Deng; Chun Zhang; Sponge City and Water Environment Planning and Construction in Jibu District in Changde City, Sustainability, 2022, 15(1): 444-461.**

**[2].Deng Yumei,Xie Min,Yan Hengzhen,Li Hao.The Effect of Freezing and Thawing on the Dewatering Performance of Activated Sludge[J].Journal of Environmental Engineering,2017,11（7）：4362-4366(CSCD).**

**[3].Deng Yumei,Yang Chuhui,Yu Donghui,et al..Research on the Preparation of Activated Carbon Adsorbents from Residual Sludge and Their Adsorption Performance [J].Hunan City University (Natural Science Edition),2017,26（3）:70-73.**

**[4].Deng Yumei,Yan Hengzhen,Li Hao,et al..Design and Application of Urban Rainwater Gardens: Based on the Climate Conditions of Yiyang City[J].Hunan City University (Natural Science Edition),2020,29（2）:20-23.**

**[5].Yan Tao,Deng Yumei*,Chen Wen,Yi Wei.A Brief Discussion on the Current Situation of Ecological Pollution in Dongting Lake and Governance Countermeasures[J].Management and Technology of Small and Medium-sized Enterprises,2020,（10）:32-33.**

**Educational Reform Paper**

**[1].Deng Yumei,Yan Hengzhen.Exploration and Practice of the Open Model of Water Supply and Drainage Science and Engineering Laboratory in Application-oriented Universities[J].Guangdong Chemical Industry,2016,43（18）,:217-218.**

**[2].Deng Yumei,Yan Hengzhen.Exploration of the Teaching System for Water Supply and Drainage Science and Engineering Based on Professional Assessment[J].Science and Technology Information,2017，（10）：158-159.**

**[3].Deng Yumei,Zhang Chun,Li Hao.Exploration of Teaching Reform in the Course of Water Resource Utilization and Protection[J]. Industry and Technology Forum,2019,18（22）：171-172.**

**[4].Deng Yumei,Zhou Shuiqiang,Zhang Chun,Deng Jie,Zhou Jun.A study on improving teachers' teaching abilities oriented towards enhancing students' ability to solve complex engineering problems[J].2020,19（23）：254-255.**

**Patent**

| |
|---|
| **[1].Deng Yumei,Zhou Shuiqiang.A wastewater treatment device[P].Utility model patent, patent number:ZL 2017 2 0345653.2, authorization announcement date:2017.11.3.**<br>**[2].Deng Yumei,Yu Donghui,Li Hao,Zhou Shuiqiang.A magnetic field generating device with adjustable field strength and direction[P].Utility model patent, patent number:ZL 2017 2 0345651.3, authorization announcement date:2018.2.9.** |
| **Scientific Research Award** |
| **[1].Deng Yumei,Xie Min,Yan Hengzhen,Li Hao.The Effect of Freezing and Thawing Treatment on the Dewatering Performance of Activated Sludge.Third Prize of the 3rd Excellent Academic Achievement Award in Natural Science of Yiyang City,2019.** |
| **Teaching Award** |
| **[1].Second prize in the classroom teaching competition at Hunan City University,July 2020.**<br>**[2].2020was awarded the title of Excellent Teacher by Hunan City University.**<br>**[3].Design of Urban Rain Gardens Based on the Climate Conditions of Hunan Province.First Hunan Province College Student Comprehensive Utilization of Water Resources Innovative Design Competition, Second Prize,2016.(Second Supervisor)** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **None** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Name** | **Lu Sen** | **Gender** | **Woman** | **Date of birth** | **1990.12** | **Job title** | **Lecturer** |
| **Highest degree** | **graduate student** | **highest degree** | **Master's degree** | **Email** | **751742323@qq.com** | | |
| **Educational background** | | | | | | | |
| **2007.09-2011.06, Hunan City University, Department of Urban Construction, Bachelor of Engineering** | | | | | | | |

**2012.09-2015.06, Nanhua University School of Urban Construction, Master of Engineering**

**2022.09-Currently, a PhD student in Engineering at the College of Resources, Environment and Safety Engineering, Nanhua University**

**Scientific Research and Teaching Reform Project**

**Hunan City University Open Topic Project: Research on Rural Drinking Water Safety Issues and Early Warning Mechanisms,2020-2021, Project Leader.**

**Hunan City University Teaching Reform Project: New Engineering+Professional Certification"Research on the ideological and political education reform of the course on instrumentation and control in water supply and drainage engineering under the background of2021.12-2023.11, Project Leader.**

**Hunan Provincial Department of Education Research Project: Preparation of Amine Oxime Modified Silica and Effectiveness Study on Treating Uranium (VI) Wastewater,2021.11-2023.11, Project Leader.**

**Research paper**

**[1].Lu Sen.Analysis of Factors Influencing Graduate Employment Competence[J]. Quality Management,2017,10（7）：199-200.**

**[2].Xiong Zhengwei,Lu Sen,Yang Bohao,Wang Zhiyong,Guo Qingwei.Research on the Impact of Filling Rate on the Suspended Chain Aerobic Contact Oxidation Process[J]. Environmental Science and Technology,2014,37（5）：164-168.（CSCD）**

**[3].Xiong Zhengwei,Lu Sen,Wang Zhiyong,Guo Qingwei,Yang Bohao,Sun Ping.Biological contact oxidation process of suspended chain for treating river sewage[J]. Journal of Environmental Engineering,2014,8（7）：2748-2752.（CSCD）**

**[4].Lu SenYin YuqiangShu JinkaiFunctionalized Ethylamine Oxime$SiO_2$Preparation and Its Adsorption Study onU(VI)[J].Natural Sciences,2023,5（9）：1-3.**

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**Lu Sen, Shu Jinkai."New Engineering+Professional Certification"Exploration of Teaching Reform in "Water Supply and Drainage Instrumentation and Control"[J].China Education Workers,2023,9（72）：127.**

**Patent**

**[1].Lu Sen, Xiao Han, Duan Hongling, Yin Yuqiang.A wastewater treatment dosing device.National invention patent, patent number: ZL201810734982.5, authorization announcement date:2020.6.26.**

**[2].Wang Jinsong,Lu Sen, Xiong Zhengwei, Xie Shuibo, Tang Zhenping, Xu Hua, Tang Xiaolin, Yang Jinhui, Li Xia. A method for preparing amine oxime ethane bridged mesoporous silica, invention patent, patent number:ZL 2014 1 0853527.9,authorization announcement date:2017.7.14..**

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| **[4].Yin Yuqiang, Su Jian, Lu Sen. A new maintenance device for water conservancy engineering embankments[P].Utility model patent, patent number:ZL201920466336.5,authorization announcement date:2019.12.27**<br><br>**[5].Yin Yuqiang, Su Jian, Lu Sen. A water garbage collection device for hydraulic engineering[P].Utility model patent, patent number:ZL201920201026.0,authorization announcement date:2019.11.26** |
| **Scientific Research Award** |
| **None** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **None** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Li Hao** | **Gender** | **Woman** | **Date of birth** | **1991.02** | **Job title** | **experimenter** |
| **Highest degree** | **graduate student** | **highest degree** | **Master's degree** | **Email** | **329474911@qq.com** | | |
| **Educational background** | | | | | | | |
| **2008.09-2012.07, Changsha University of Science and Technology, Bachelor of Engineering**<br><br>**2012.09-2015.07, Changsha University of Science and Technology, Master of Engineering degree** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1].Ministry of Education general project: Ultrasonic-Template polymerization cationic polyacrylamide (TPAD) and its application research for sludge conditioning(19C0376),2019-2021, project leader.**<br><br>**[2] 2020Ministry of Education Industry-University Cooperation Collaborative Education Project:“Innovation and Entrepreneurship+Professional Certification”Construction of a practical teaching base for engineering design capabilities in the water supply and drainage major,2019-2021, project leader.** | | | | | | | |

**[3].Hunan City University Teaching Reform Project: The Course of "Water Quality Engineering Experiment" under the Background of Golden CoursesSPOCBlended Teaching Reform and Research(Xiangcheng Institute Education Document2020-15 No.),2020-2022, project leader.**

**[4].Hunan City University Teaching Reform Project: Based on“Engineering and Innovation”the Research on the Construction and Management of Application-oriented Undergraduate Innovation Laboratories(Xiangcheng Institute Document2017-120 No.)（Xiangcheng Institute Document〔2016〕51 No.-12），2016-2018，Project Leader.**

**[5].Hunan City University“Safety Assurance of Drinking Water Quality in Rural Areas of Hunan Province” Engineering Technology Research Center2020 Annual Open Project:Preparation of Ti/IrO2 electrodes and research on the removal of tetracycline organic pollutants from water,2020-2022, project leader.**

**Research paper**

**[1].Li Hao,Xie Min,Wang Aihe,Jiang Haiyan.The effect of ultrasound combined withCPAMon the structure of sludge and its dewatering performance[J].Public Standardization,2020(22):182-183.**

**[2].Li Hao,Wang Aihe.Study on the Adsorption Performance of Modified Tea Residue/Kaolin Composite Materials for Ammonia Nitrogen in Water/[J].Journal of Hunan City University(Natural Science Edition),2017,26(06):76-78.**

**Educational Reform Paper**

**[1].Li Hao,Wang Aihe,Zhang Chun,Jiang Haiyan.The application exploration of virtual simulation projects in“Water Quality Engineering Experiment”online teaching[J].Educational Teaching Forum,2020(45):274-275.**

**[2].Li Hao,Wang Aihe,Deng Yumei.Research on the Construction and Management of Application-Oriented Undergraduate Innovation Laboratories Based on“Engineering and Innovation”.[J].Education and Teaching Forum,2019(18):271-272.**

**[3].Li Hao,Yan Hengzhen,Deng Yumei.Research on CADfor Water Supply and Drainage EngineeringBased on Improving Engineering Capability[J].Value Engineering,2018,37(05):183-184.**

**Patent**

**[1]."A Sewage Treatment System Sewage Treatment Tank" (ZL201922285344.2),Utility Model Patent**

**Scientific Research Award**

**None**

**Teaching Award**

**[1].Second Prize in the Hunan City University Teacher Information Technology (Smart) Classroom Teaching Competition,2020.07。**

**[2].Third Prize in the Information Technology Teaching Competition at Hunan City University,July 2017**

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| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **None** |

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|---|---|---|---|---|---|---|---|
| **Name** | **Shu Jinkai** | **Gender** | **man** | **Date of birth** | **1992.07** | **Job title** | **Lecturer** |
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| **Educational background** | | | | | | | |
| **2012.09-2016.06, Hunan City University, School of Municipal and Surveying Engineering, Water Supply and Drainage Engineering, Bachelor's Degree**<br>**2017.09-2020.06, Shenyang Jianzhu University, School of Municipal and Environmental Engineering, Architecture and Civil Engineering, Master's** | | | | | | | |
| **Scientific Research and Teaching Reform Project** | | | | | | | |
| **[1].General project of the Education Department: Study on the efficiency of combined treatment of pyridine-containing wastewater using hydrodynamic cavitation and$MWCNTs/TiO_2$photocatalysis (20C0366), hosted.**<br>**[2].Youth Project of the Yiyang Social Science Federation: Research on the Governance Strategies for Heavy Metal Pollution in Dongting Lake under the Dual Carbon Goals (2023YS153), hosted.**<br>**[3].Hunan City University Teaching Reform Project: Research on the Teaching Reform of Hydraulics Course under the Background of Engineering Education Accreditation (2022), hosted.** | | | | | | | |
| **Research paper** | | | | | | | |
| **[1]. “Influencing Factors and Kinetics of Modified Shell Powder/La-Fe-$TiO_2$ Photocatalytic Degradation of Pyridine Wastewater.” International Journal of Environmental Research and Public Health vol. 19,22 14835. 11 Nov. 2022, doi:10.3390/ijerph192214835.（SCI3区）**<br>**[2].Research Progress on Cavitation and Its Applications[J].Journal of Hunan City University(Natural Science Edition),2021,30(06):69-72.** | | | | | | | |

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| **[3].Accelerating the research on innovative utilization of reed straw[J].Science and Technology, 2022 Year 9 Issue.**<br>**[4].Overview of Research on Dyeing and Printing Wastewater Treatment Technologies[J].Paper Equipment and Materials,2022,51(08):141-143.**<br>**[5].“Dual Carbon”Research on the Governance Strategies for Heavy Metal Pollution in Dongting Lake under the Dual Carbon Target[J].Paper Equipment and Materials,2023,52(07):147-149.** |
| **Educational Reform Paper** |
| **[1].Reflections on the Teaching of the Course "Fundamentals of Water Engineering Equipment" under the Background of Smart Water Management[J].National Literature,2022 Year52 Issue.**<br>**[2].Research on the Teaching Reform of Hydraulics Course under the Background of Engineering Education Accreditation[J].Charming China,2023,36:58-60.** |
| **Patent** |
| **[1].A sewage treatment device, National Intellectual Property Administration,2023233476028 utility model patent (accepted), first.** |
| **Scientific Research Award** |
| **[1].Fifth Excellent Academic Achievement Award in Natural Sciences of Yiyang City,2023year, first.** |
| **Teaching Award** |
| **None** |
| **Published Monographs/Books** |
| **None** |
| **Engineering background** |
| **None** |

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| Name | Deng Zhenning | Gender | man | Date of birth | 1995.10 | Job title | Lecturer |
| Highest degree | graduate student | highest degree | Doctorate | Email | dengzn202@163.com | | |
| **Educational background** | | | | | | | |

2013.09-2017.06, Hunan City University, Water Supply and Drainage Science and Engineering, Bachelor of Engineering

2017.09-2020.06, Nanhua University, Master's degree in Civil Engineering

2020.09-2024.06, Nanchang University, Environmental Science and Engineering major, Doctor of Engineering degree

**Scientific Research and Teaching Reform Project**

[1].2024Hunan Provincial Department of Education General Scientific Research Project—Research on the Construction of High Stability and Low-Cost Solid Adsorbents for Carbon Dioxide Capture and Efficient Capture Mechanisms (24C0467，100,000，Principal Investigator)

**Research paper**

[1].**Zhenning Deng**, Yi Liu, Mingwei Wan, Shengya Ge, Zhiwei Zhao, Jingwen Chen, Shixia Chen, Shuguang Deng, Jun Wang. Breaking trade-off effect of Xe/Kr separation on microporous and heteroatoms-rich carbon adsorbents. Separation and Purification Technology, 2023, 308, 122942-122948.（JCR SCI一区TOPJournal）

[2] **Zhenning Deng,** Longsheng Yang, Hanting Xiong, Junhui Liu, Xing Liu, Zhenyu Zhou, Jingwen Chen, Shixia Chen, Shuguang Deng, Banglin Chen, Jun Wang. Green and Scalable Preparation of an Isomeric CALF-20 Adsorbent with Tailored Pore Size for Molecular Sieving of Propylene from Propane. Small Methods, 2024, 2400838.（JCR SCI一区期刊）

[3] Junhui Liu, Hanting Xiong, Hua Shuai, Xing Liu, Yong Peng, Lingmin Wang, Pengxiang Wang, Zhiwei Zhao, **Zhenning Deng,** Zhenyu Zhou, Jingwen Chen, Shixia Chen, Zheling Zeng, Shuguang Deng, Jun Wang. Molecular sieving of iso-butene from C4 olefins with simultaneous high 1,3-butadiene and n-butene uptakes. Nature Communications, 2024, 15, 2222.（Nature Sub-journal, JCR SCI Zone 1 TOP Journal）

[4] Yong Peng, Hanting Xiong, Peixin Zhang, Zhiwei Zhao, Xing Liu, Shihui Tang, Weizhen Zhou, **Zhenning Deng,** Junhui Liu, Yao Zhong, Zeliang Wu, Jingwen Chen, Zhenyu Zhou, Shixia Chen, Shuguang Deng, Jun Wang. Interaction-selective molecular sieving adsorbent for direct separation of ethylene from senary C2-C4 olefin/paraffin mixture. Nature Communications, 2024, 15, 625.（Nature Subjournal, JCR SCI Zone 1 TOP Journal）

[5] Hanting Xiong, Yong Peng, Xing Liu, Pengxiang Wang, Peixin Zhang, Longsheng Yang, Junhui Liu, Hua Shuai, Lingmin Wang, **Zhenning Deng,** Shixia Chen, Jingwen Chen, Zhenyu Zhou, Shuguang Deng, Jun Wang. Topology Reconfiguration of Anion-Pillared Metal-Organic Framework from Flexibility to Rigidity for Enhanced Acetylene Separation. Advanced Materials, 2024, 2401693.（JCR SCI一区TOP期刊）

[6] Zhiwei Zhao, Ke Wu, Yong Peng, Yi Liu, **Zhenning Deng,** Xinxin Han, Shixia Chen, Jingwen Chen, Shuguang Deng, Jun Wang. Microporous Carbon Granules with Narrow Pore Size Distribution and Rich Oxygen Functionalities for Xe/Kr Separation. Separation and Purification Technology, 2022, 122074..（JCR SCI一区TOPJournal）

[7] Zhiwei Zhao, Hanting Xiong, Yong Peng, Xing Liu, Pengxiang Wang, Junhui Liu, **Zhenning Deng,** Shixia Chen, Jingwen Chen, Zhenyu Zhou, Shuguang Deng, Jun Wang. Pore Environment Modulation of Metal Organic Frameworks Enables Efficient Adsorptive Separation of Xe/Kr. Separation and Purification Technology, 2023, 308, 124529..（JCR SCI一区TOP期刊）

[8] Liu Qing,**Deng Zhening**,Hua Yilong,et al..Research Progress on the Green Synthesis of Nano Iron and Its Applications in the Environment[J].Chemical Engineering Progress,2020,39(05):1950-1963.（EI，ExcellenceJournal）

[9] Zhao Guodong,Ling Xianyong,**Deng Zhanning,**et al..FeCu/BT green synthesis and its uranium removal performance study[J].Industrial Water Treatment,2020,40(12):83-87.（CSCD，core journal）

**Educational Reform Paper**

None

**Patent**

None

**Scientific Research Award**

None

**Teaching Award**

None

**Published Monographs/Books**

None

**Engineering background**

None