



WANG Can

Associate Professor

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Links: CV

BIO

Education

- **Ph.D.**, Sichuan University, Microbiology (2020)
- **Joint Doctoral Training**, University of Waterloo, Microbiology (2019-2020)
- **M.A.**, Sichuan University, Biosafety (2017)
- **B.S.**, Sichuan Agricultural University, Bioengineering (2014)

Employment

Academic Appointments

- Associate Professor, Department of Bioengineering, School of life science and engineering, Southwest Jiaotong University, China (2020-present)

RESEARCH INTERESTS

- Theory and technology for soil/water pollution bioremediation;
- Controlled Ecological Life Support System;
- Plants growth and stress tolerance promoting microorganism;
- Recycling of agricultural waste applying microorganism;

SELECTED PUBLICATIONS

Principal Publications of the Last Five Years

- **Wang Can(#)**, Li Yunzhen(#), Tan Hang, Zhang Akang, Xu Heng(*). A novel microbe consortium, nano-visible light photocatalyst and microcapsule system to degrade PAHs[J]. Chemical Engineering Journal, 2019, 359: 1065-1074
- **Wang Can(#)**, Tan Hang(#), Li Hao, Xie Yanluo, Liu Huakang, Xu Heng(*). Mechanism study of Chromium influenced soil remediated by an uptake-detoxification system using hyperaccumulator, resistant microbe consortium, and nano iron complex [J]. Environmental Pollution, 2020, 257, 113558.
- **Wang Can(#)**, Luo Yao, Tan Hang, Liu Huakang, Xu Fei, Xu Heng(*). Responsiveness change of biochemistry and micro-ecology in alkaline soil under PAHs contamination with or without heavy metal interaction [J]. Environmental Pollution, 2020, 266(3), 115296.

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- **Wang Can(#)**, Liu Huakang(#), Liu Zizhao, Gao Yufeng, Wu Bin, Xu Heng(*). Fe₃O₄ nanoparticle-coated mushroom source biomaterial for Cr (VI) polluted liquid treatment and mechanism research[J]. Royal Society open science, 2018, 5(5): 171776.
 - **Wang Can(#)**, Yu Dong, Shi Wenjin, Jiao Kai, Wu Bin, Xu Heng(*). Application of spent mushroom (*Lentinula edodes*) substrate and acclimated sewage sludge on the bioremediation of polycyclic aromatic hydrocarbon polluted soil [J]. RSC Advances, 2016, 6(43): 37274-37285.
 - Li Mingxing(#), He Xiaosong, Tang Jian, Li Xing, Zhao Rui, Tao Yiqian, **Wang Can(*)**, Qiu Zhongping(*). Influence of moisture content on chicken manure stabilization during microbial agent-enhanced composting[J]. Chemosphere, 2021, 264(2), 128549.
 - Xu Fei(#), Chen Peng, Li Hao, Qiao Suyu, Wang Jiaxin, Wang Ying, Wang Xitong, Wu Bohan, Liu Huakang, **Wang Can(*)**, Xu Heng(*). Comparative transcriptome analysis reveals the differential response to cadmium stress of two pleurotus fungi: pleurotus cornucopiae and pleurotus ostreatus[J]. Journal of Hazardous Materials, 2021, 125814.
 - Tan Hang(#), **Wang Can(#)**, Zeng Guoquan, Luo Yao, & Xu Heng(*). Bioreduction and biosorption of cr(vi) by a novel bacillus sp. crb-b1 strain. Journal of Hazardous Materials, 2019, 386, 121628.
 - Liu Huakang (#), **Wang Can(#)**, Xu Heng Xu(*). Ecological responses of soil microbial abundance and diversity to cadmium and soil properties in farmland around an enterprise-intensive region [J]. Journal of Hazardous Material, 2020, 122478.
 - Xu Fei(#), **Wang Can(#)**, Xiao Kai, Xu Heng(*). Investigation of titanium dioxide/tungstic acid-based photocatalyst for human excrement wastewater treatment[J]. Acta Astronautica, 2018, 146: 7-14.

RESEARCH

Current Research

- Construction and application of integrated micro-biofuel cells (Science and Technology Program of Sichuan Province, 2021-2023, ¥ 100 000)
- Mechanism of a self-assembled microbial-photocatalytic coupling system for the remediation of Cadmium-Tetracycline co-contamination (Fundamental Research Funds for the Central Universities, 2021-2022, ¥ 100 000)
- Special funds for talent introduction and scientific research start-up of Southwest Jiaotong University, 2021-2022, ¥ 200 000
- Development and application of tobacco growth-promoting and drought-resistant biological agents (Science and Technology Project of China National Tobacco Corporation, 2021-2023, ¥ 2 600 000)

Research Group

- Dr. Wang is a member of the Resource and Environmental Biotechnology group led by Prof. Qiu Zhongping.

TEACHING

Primary Teaching areas

- Biology

Current Courses

- Principles and applications of environmental biotechnology (graduate course)
- Environmental bioengineering (graduate course)

GRADUATE SUPERVISION

I am available for the supervision of graduate and undergraduate students.