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个人简介：

2014 年 7 月进入江苏科技大学工作。省部级人才项目入选者，江苏省优秀硕士学位论文指导教师，现任农业农村部蚕桑产业产品质量监督检验测试中心（镇江）理化检测室主任，主要从事生物材料、天然药物、生物催化等相关方向的研究，在次生代谢产物检测鉴定、生物转化、抗菌活性及纤维素、蚕丝功能材料的制备与应用等方面做了大量研究。先后以第一作者或通讯作者在 Chemical Engineering Journal, Green Chemistry, Carbohydrate Polymers, ACS Sustainable Chemistry & Engineering 等杂志发表多篇 SCI 研究论文。

研究方向（领域）：天然药物、生物材料、生物催化

招生方向：

硕士：生物学，生物与医药，植物保护与资源利用，畜牧学

课程教学：《生物反应与分离工程》，《生物反应与分离工程实验》，《生物分离工程》

代表性论著：

部分论著如下

[1] Chen-Xi He, Zhen-Zhen Lu, Xiao-Hui Yao, Tao Chen, Wei-Guo Zhao, Jun Wang, **Dong-Yang Zhang (通讯作者)***, Construction of a precise temperature–controlled continuous-flow catalytic reactor based on cellulose and MXene with directional thermal pathway heating and enzyme immobilization. *Chemical Engineering Journal,* 2025, 504, 158971. (中科院 1 区，IF=13.4)

[2] Bai-Chuan Lu, En-Jiang Liu, Shi-Wen Guo, Zheng-Feng Zhang, Chen-Man Zong, Peng Song, Xiao-Hui Yao, Wei-Guo Zhao, Tao Chen, **Dong-Yang Zhang (通讯作者)***, A multifunctional hydrogel of cellulose nanofiber/microfibrillated cellulose hierarchical network for photothermal antibacterial and all-solid supercapacitor assembly. *International Journal of Biological Macromolecules*.306, 2025, 141063. (中科院 1 区，IF=7.7)

[3] En-Jiang Liu, Yu-Shi Shen, Mei-Yan Ling, Chen-Xi He, Xing Zhou, Jun Wang, Shuai You, Wei-Guo Zhao, Xiao-Hui Yao, **Dong-Yang Zhang (通讯作者)***. Wood-inspired dual-scale directional channel cellulose bioreactors with high mass transfer efficiency for continuous flow catalytic green conversion. *Green Chemistry*, 26, 2024, 8256-8266. (中科院 1 区，IF=9.3)

[4] Run-Ze Hu, Lei Liu, En-Jiang Liu, Jie Tu, Xiao-Hui Yao, Peng Song, **Dong-Yang Zhang (通讯作者)***, Zhan-Hua Huang, Tao Chen. Biomimetic hierarchical composites inspired by natural pomelo peel for mechanical-damage resistance and storage of fruits. *Chemical Engineering Journal*,485, 2024, 149853. (中科院 1 区，IF=13.4)

[5] Ping-Yue Wang, Xin-Xin Chen, Xing Zhou, Xiao-Yi Xu,

Zhi-Qiang Li, Mei-Rong Zhang, Xiao-Hui Yao, Jun Wang, Wei-Guo Zhao, **Dong-Yang Zhang (通讯作者)***, and Tao Chen*. Continuous Fluid Catalytic Reactor Constructed Based on In Situ Growth of MOF Immobilized Enzyme on Ordered Silk Fabric. ACS Sustainable Chemistry & Engineering, 2024, 12, 23, 8584-8598. (中科院 1 区，IF=7.1)

[6] Yu-Shi Shen, Xing Zhou, Shuai You, Lu-Chan Gong, Jun Wang, Tao Chen, Wei-Guo Zhao, Xiao-Hui Yao, **Dong-Yang Zhang(通讯作者)***. Wood-inspired high-efficiency bioreactors with hierarchical porous structures for continuous flow reactions. Green Chemistry, 25 (2023) 1530-1539. (中科院 1 区，IF=9.3)

[7] Run-Ze Hu, Jia-Xin Yang, Zheng-Feng Zhang, Jia-Xing Huang, Yu-Shi Shen, Xiao-Hui Yao, **Dong-Yang Zhang (通讯作者)** *, Tao Chen, Yu-Jie Fu. An all-cellulose sponge with a nanofiller-assisted hierarchical cellular structure for fruit maintaining freshness. International Journal of Biological Macromolecules, 225 (2023) 1361–1373. (中科院 1 区，IF=7.7)

[8] Run-Ze Hu, Zheng-Feng Zhang, Ben-Qing Yu, Jun Wang , Xiao-Hui Yao, Tao Chen, Wei-Guo Zhao, **Dong-Yang Zhang (通讯作者)***. Natural phenolics and flavonoids modified the hierarchical cellular cellulose sponges for efficient water disinfection. Carbohydrate Polymers, 296 (2022) 119962, (中科院 1 区，IF=10.7)

[9]Yu-Shi Shen , Xiao-Hui Yao , Chen-Xi He , Run-Ze Hu , Jia-Xin Yang , **Dong-Yang Zhang(通讯作者)** *, Tao Chen. A wood-based fluid catalytic reactor with directional channels and porous inner walls for efficient degradation of 4-NP by immobilized laccase. Industrial Crops & Products 178 (2022) 114589

[10] **Dong-Yang Zhang**, Xiao-Qi Zhang, Xiao-Hui Yao, Yi Wan, Peng Song, Ze-Yu Liu, Yu-Jie Fu, Microwave-assisted synthesis of PdNPs by cellulose solution to prepare 3D porous microspheres applied on dyes discoloration, Carbohydrate Polymers 247 (2020). (中科院 1 区，IF=10.7)

[11] Yi Wan, Ze-Yu Liu, Peng Song, Xiao-Qi Zhang, Jiang-Chao Song, Yu-Jie Fu, Xiao-Hui Yao, Jun Wang, Tao Chen, **Dong-Yang Zhang(通讯作者)** *, Long Li, Can-Yang Shi, Ionic liquid groups modified 3D porous cellulose microspheres for selective adsorption of AO7 dye, Journal of Cleaner Production, 240 (2019), (中科院 1 区，IF=9.8)

[12] **Zhang Dong-Yang**, Zhang Ning, Song Peng, Hao Jing-Yi, Wan Yi, Yao Xiao-Hui, Chen Tao, Li Long, Functionalized cellulose beads with three dimensional porous structure for rapid adsorption of active constituents from Pyrola incarnata, Carbohydrate Polymers, 2018.2.1, 181(1): 560-569. (中科院 1 区，IF=10.7)

[13] **Dong-Yang Zhang**, Yi Wan, Jian-Yi Xu, Guo-Hua Wu, Long Li, Xiao-Hui Yao. Ultrasound extraction of polysaccharides from mulberry leaves and their effect on enhancing antioxidant activity. Carbohydrate Polymers,137 (2016) 473–479. (中科院 1 区，IF=10.7)

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[1] **张东阳**，姚晓慧，胡润泽，陈涛，赵卫国，杨佳昕，刘恩江。一种基于不同长度分子链混合的柔软弹性抗疲劳全纤维素海绵用作水果保护包装的制备方法，2023，中国，CN114085417B

[2] **张东阳**，姚晓慧，胡润泽，陈涛，杨佳昕，赵卫国，沈宇诗。一种基于天然活性成分绿原酸修饰纤维素抗菌材料的制备方法，2022，中国，CN112300292B

[3] **张东阳**，杨佳昕，陈涛，姚晓慧，赵卫国，张笑綦，胡润泽。 一种微波催化纤维素还原银制备纳米银-纤维素复合抗菌材料的方法，2022，中国，CN111995799B

[4] 姚晓慧，**张东阳**，周紫阳，朱亚星，双菲凡，赵卫国，陈涛。具有定向贯通孔道的蚕丝-碳纳米管复合材料及制备方法，2022，中国，CN112266620B

科研项目：

1. 江苏省自然科学基金面上项目，仿软骨结构蚕丝纳米纤维网络 PVA 水凝胶超级电容器研究。
2. 农业农村部行业标准制修订项目《桑叶中有机磷农药残留的测定 气相色谱法》
3. 农业农村部行业标准制修订项目《桑叶中 1-脱氧野尻霉素的测定 高效液相色谱串联质谱法》
4. 江苏科技大学青年学者（第二层次）。
5. 国家自然科学基金青年项目，具有离子液体功能性基团的新型纳米多孔纤维素微球的构建及其对桑叶中活性成分的吸附机理研究。
6. 江苏省自然科学基金青年项目，离子液体基新型纳米多孔纤维素微球的制备及其对桑叶中活性成分的吸附机理研究。
7. 国家特色农产品质量安全风险评估项目（GJFP201701005）蚕桑、棉花、麻类作物及烟草等质量安全风险评估与特质性营养成分检测。