

Binbin Du

PhD student, Department of Civil, Chemical, Environmental, and Materials Engineering

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Education

University of Bologna

Bologna, Italy

Department of Civil, Chemical, Environmental, and Materials Engineering

11.2024-now

Major: Conservation Materials for Stone Cultural Heritage

Supervisor: Prof. Enrico Sassoni

Zhejiang University

Hangzhou, China

Master of Cultural heritage and Museology

09.2021-06.2024

Major: cultural heritage conservation

Supervisor: Prof. Hu Yulan

Beijing Forestry University

Beijing, China

Bachelor of Wood Science and Engineering

09.2017-06.2021

Major: Timber structural materials and engineering

Publications:

Hu, Y., Wu, R., Zhu, C., Du, B., & Zhang, B. (2025). The application of silk fibroin nanofiber membrane in controlling microbial deterioration of textile cultural relics. *Inorganic Chemistry Communications*, 115498.

Du Binbin, Pan Liwei, Zheng Mengyi, et al. Preparation of AgNPs/oregano essential oil composite film and its antibacterial application in the conservation of paper relics[J]. *Inorganic Chemistry Communications*, 2023: 112008.

HU Yulan, DU Binbin, PAN Liwei, et al. Preparation of composite polyacrylonitrile - nano silver electrospun fiber membrane and its application in controlling microbial deterioration of grotto cultural heritage[J]. *Acta Materiae Compositae Sinica*, 2023, 40(7): 3986-3997.

Research experiences:

Research on green prevention and control technology of microbial/moss diseases in grotto cultural relics (National Key Research and Development Program: 2019YF C1520503)

09.2021-06.2024

Responsibilities:

- Synthesis and analysis of electrospinning membranes
- Study on the antibacterial effect against *Aspergillus niger*
- Research on microbial inhibition of stone cultural relics using electrospinning membranes
- Research on microbial inhibition of paper cultural relics and textiles

Controlling microbial deterioration and consolidation of stone heritage

11.2024-Now

- Combining metal nanoparticles with Hydroxyapatite coating

- Combining essential oils with Hydroxyapatite coating
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Activities:

Coordinator of Young Volunteer Association

10.2017-06.2019

Beijing forestry University

Responsible for organizing and coordinating all the volunteer activities on campus

Outstanding volunteer in Beijing Forestry University in 2017-2018.

Volunteer in the 70th Anniversary Celebration of the National Day

07.2019-10.2019

Volunteer for 242 hours

Outstanding volunteer

Skills:

Lab skills: microbial culture, Materials characterization Analysis (FTIR, TGA, SEM-EDS, Raman XRD),electrospinning technology.

Computer skills: Office, Auto CAD, Sketchup, Origin, Jade.

Language: English (IELTS 7.0, 2023), Chinese (Native).