



Get to know the corrosion fighters

They have told us their story, how will yours be?



JINGJING ZHAO

Winner of **Best Poster Presentation - Eurocorr 2023**

Could you give us a little presentation of yours?

Certainly. My name is Jingjing Zhao. I m from China. Now I am a last year PhD candidate in the Faculty Aerospace Engineering at TU Delft.



What do your studies consist of?

It's about all the strategies to fight corrosion for aluminum alloys. Specifically, I am exploring the use of organic corrosion inhibitors in organic coatings without losing their efficiency. My studies include a detailed analysis of these inhibitors and employing various barriers like diatomaceous earth and CVD/ALD nanofilms to embed these inhibitors in coatings..

How did you get there? What motivated you to do this?

When I looked for a position in Europe, I targeted at research groups working on chemical engineering, biochemical engineering because these fit my background. I stumbled upon this project on natural nanoporous microparticles for corrosion control at TU Delft. I was attracted by the beautiful diatom exoskeletons particles that my supervisor Dr. Santiago J. Gracia is working on. Although I was not expert on corrosion 😊, I thought this would be a cool project and I could do nice scientific researches on it.

What do you like the most about your activities?

I would say it's the witnessing my growth into an independent researcher, adept at solving complex problems. The invaluable training and learning experiences at TU Delft, coupled with interactions with supervisors, colleagues, and friends, make every day enjoyable.

Is there something you don't like?

There have been challenges, like working with complex, home-built setups without prior engineering experience. Although it was a difficult process, I wouldn't say I disliked it, as it was a learning experience and eventually led to successful outcomes.

How did you get here? How did you discover this world?

After earning my master's degree, I worked as an environmental engineer, which was stable but not challenging enough. If I keep doing that job, I can imagine what my life would be in decades. Then I start looking for a PhD position because I like trying new things, exploring the world and achieving high goals.

If you didn't dedicate yourself to this field, what would you have liked to be?

I would have been inclined towards biotechnology, as nature's mysteries have always fascinated me. I would like to explore new medicines to cure diseases.

Where do you see yourself in the future?

I see myself possibly continuing my career in the Netherlands or elsewhere in Europe, preferably in an industry role that leverages my expertise in coatings, electrochemistry, and thin film deposition techniques.

Do you think networking will be important to get there?

Networking is undoubtedly crucial. It's an effective way to showcase your capabilities and build meaningful connections that can offer mutual support.

Do you think your field of studies needs more visibility?

Yes. Corrosion is a critical issue that affects a wide range of industries, and development of the whole society. It needs greater recognition and understanding.

In your opinion, what is the single most valuable attribute is researcher should have?

I believe is the critical thinking. It's essential for analyzing, interpreting, and innovating not only in our field but a good researcher.

What advice would you give to students in an early stage of their careers?

In the early stage, I suggest focusing on building a solid foundation in your area of study and building your soft-skills such as scientific thinking, story-telling, writing, etc.. Keeping an open mind and being adaptable are also beneficial.

Could you say how you see the future of engineers/corrosion scientists?

The future is promising. With ongoing challenges in environmental impact, energy, and resource optimization, the expertise of corrosion scientists and engineers will be increasingly crucial.

Corrosionist... is it born or made?

A Corrosionist is made by education and experience. I think continuous learning in the field is also important to be a good corrosionist.

TO END... COULD YOU TELL US...

- A color: #0ABAB5
- A number: 8
- A song: Paganini Caprice No.24
- A hobby: Ski
- A city: Delft