Get to know the corrosion fighters

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

↘ **VIACHESLAV SHKIRSKIY**

Winner of the **YEFC 3M plenary lecture competition - Eurocorr 2023**

Could you give us a little presentation of yours?
Everyone knows me as Slava, but if you're searching for my published articles, you'll need my full, official name: Viacheslav SHKIRSKIY. A few years back, I landed a position with CNRS to pursue my independent research at Université Paris Cité in Paris, France.

What do your studies consist of?
My work is all about diving into how optical and machine learning techniques can be applied to corrosion research in the first place. But I don't stop there—I'm also keen on pushing the boundaries to see how these methods can be broadly adapted to various fields within electrochemistry.

How did you get here? What motivated you to do this ?
Getting to this point involved completing a PhD thesis in corrosion, along with numerous post-doctoral studies in corrosion and local (spectro)electrochemical methods. My driving force has always been curiosity and the urge to freely explore the unknown.

What do you like the most about your activities?
The thrill of scientific research lies in its unpredictability; you never know where your discoveries might take you. It can be a risky endeavor, and honestly, most of the time, it might not lead anywhere. But on the occasions it does lead somewhere, that sense of discovery is incredibly rewarding—I really love that feeling.

Is there something you don't like?
The most challenging aspect of research is also its most exciting: unpredictability. It can be a tough burden, especially when your funding body expects tangible deliverables. In the practical scenarios of today's world, unfortunately, you often find yourself juggling between taking risks and meeting deliverables, which can be quite tricky to balance.

If you didn't dedicate yourself to this field, what would you have liked to do?
If I hadn't delved into corrosion, I would have been eager to explore any field in science. Looking back, it's fascinating to see the extensive application of artificial intelligence in current studies and how quickly it's permeating other fields, including corrosion. Reflecting on my university years, I think I would have liked to focus more on AI and dedicate myself further to this rapidly evolving field.

Where do you see yourself in the future?
In the years ahead, I'm set on investing significant time and effort into exploring the potential of machine learning-driven discoveries in corrosion. I'd be thrilled to contribute to the development of this new field from its early stages and envision myself taking on the role of an AI corrosion expert later in my career.

Do you think networking will be important to get there?
Networking is indeed crucial to achieving this goal. The challenge in broadly applying machine learning methodologies to corrosion research is that the field predominantly attracts individuals with a strong chemical background, whereas the application of machine learning necessitates solid mathematical foundations. This gap means that attracting talent from disciplines other than chemistry is essential. Building bridges and fostering connections between these two communities will be indispensable in steering the field of corrosion towards AI-driven discoveries.

In your opinion, what is the single most valuable attribute is researcher should have?
Self-driven curiosity is definitely the number one attribute any researcher should possess.

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

I offer a somewhat unconventional piece of advice that, in my view, doesn't get enough attention: the life of a modern researcher involves a significant amount of writing. Whether it's composing a PhD thesis, drafting a scientific article, preparing an abstract for a conference, or writing a grant proposal, writing skills are crucial. They also play a key role in developing critical thinking, as organizing your thoughts and ideas clearly and coherently in a lengthy document can be challenging at first. My advice is to devote as much time and effort as possible to writing and reading early on, making these skills as important as conducting proper experiments in the lab.

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

In the context of data-driven discoveries, I envision future engineers and corrosion scientists emerging from fields like applied mathematics, equipped with complementary programming skills. They'll catch up on chemistry and materials science knowledge later in their careers as they choose to dedicate themselves to corrosion research.

Corrosionist... is it born or made?

Made, no doubts about that.

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

- *A color: Reddish-brown*
- *A number: 14*
- *A hobby: Rock climbing*
- *A city: Siurana*