



Motivation

In this time of relative isolation from friends and professional colleagues, CorroZoom seeks to build and maintain a worldwide community of scientists with mutual interests in the area of corrosion science. This webinar series will be free to everyone in the world. CorroZoom is not associated with any professional organization or society. An informal organizing committee has selected the speakers. Should it prove successful and the need continue, more speakers will be added.

Format

Each webinar will only be synchronous, live only – you must be logged on to see it. The webinars will include a presentation of about 45 min in length and a discussion of about 15 min. Every participant will be able to submit questions for the speaker in the Zoom Q&A box, which will be handled by a moderator.

Timing

The start times are as follows (note that the start times in certain locations will be different after the March/April time change, but the start time will always be at 0800 US Eastern):

0800	US Eastern
1300	Great Britain
1400	Continental Europe
18:30	India
2100	China
2200	Japan
2400/0000	Australia Eastern



First CorroZoom Webinar

18 Jan 2021 at 0800 US Eastern

You must register in advance for this webinar (registration is free):
https://osu.zoom.us/webinar/register/WN_csTxhuk1SUe7l9wpR9R18A

After registering, you will receive a confirmation email containing information about joining the webinar.

Characterization of Surface Oxidation, Passivation and Corrosion Processes at the Nanoscale

Philippe Marcus

CNRS - Chimie ParisTech, PSL University
Institut de Recherche de Chimie Paris,
Physical Chemistry of Surfaces Research Group (PCS)
11 rue Pierre et Marie Curie, 75005 Paris (France)
philippe.marcus@chimie-paristech.fr

Corrosion-induced failures of materials are observed at the macroscopic scale, but corrosion processes are surface processes taking place at the nanoscale and initiated at the atomic scale. Understanding corrosion of metal surfaces at atomic/nanometric scale is a key to a better design and an improved control of engineering metals and protective coatings. This talk will focus on a surface science approach of corrosion and protection of metals and alloys. The topics will include key factors for the stability of surface oxide films on metals and alloys and key features of organic molecule-oxide-metal interactions for corrosion inhibition. The presented data will be based on the application of advanced surface analytical techniques, combined with electrochemical measurements and DFT modeling.



Schedule of CorroZoom Speakers

Links to register for future CorroZoom webinars will be sent out prior to the webinar date.

Date	Speaker	Title
18 Jan 2021	Philippe Marcus, CNRS, Chimie ParisTech	Characterization of Surface Oxidation, Passivation and Corrosion Processes at the Nanoscale
24 Feb 2021	Nick Birbilis, Australian National University	Corrosion of Additive Manufactured Materials
12 Mar 2021	John Scully, University of Virginia	Corrosion and Passivation of Multi Principal Element Alloys in Aqueous Solutions
9 Apr 2021	Gerald Frankel, Ohio State University	A Framework for Pitting Corrosion Based on Pit Growth Stability
20 May 2021	Sanna Virtanen, University of Erlangen	Respirometric Measurements of Corrosion Processes
9 Jun 2021	Anton Kokalj, Jožef Stefan Institute	Molecular Modeling of Corrosion Inhibitors