

## Program of EFC Summer School

### CORROSION IN GREEN ENERGY TECHNOLOGIES

Wednesday, 28 08 2024. Phenomena and basic principles of characterization

9h - 9h30	Registration / Welcome / Introduction to Green Energy
9h30 - 10 h50	Aqueous Corrosion & Basics of Electrochemical Techniques (K. Ogle, ENSCP)
10h50 – 11h05	Coffee break
11h05 – 12h30	Atmospheric Corrosion (C. Leygraf, KTH)
12h30 – 13h30	Lunch
13h30 – 15h30	Visit of IPVF (labs and roof)
15h30 – 16h45	Ex-situ Surface Analysis Techniques (D. Mercier, ENSCP & M. Bouttemy / S. Béchu, ILV)
16h45 – 18 h	Tea time and Workshops Activities on "How to test long term stability ?" [Basics and Problems of Accelerated Tests]

Thursday, 29 08 2024. Advanced Analytical approaches

8h30 – 12h45	Half day in Horiba (group 1) - Lecture: In situ and in operando coupled techniques for chemical & morphological analysis (Raman microscopy: P. Volovitch, ENSCP & Optical microscopy: V. Shkirskiy, ParisCité) - Coffee break - Practical work at Horiba France: Raman, GD OES, ellipsometry: application to CIGS solar cells, fuel cells & batteries (P. Chapon, A. Maltseva, T. Brule, R. Omar, Horiba).
8h30 – 12h45	Half day in Horiba (group 2) - Practical work at Horiba France: Raman, GD OES, ellipsometry: application to CIGS solar cells, fuel cells & batteries (P. Chapon, A. Maltseva, T. Brule, R. Omar, Horiba). - Coffee break - Lecture: In situ and in operando coupled techniques for chemical & morphological analysis (Raman microscopy: P. Volovitch, ENSCP & Optical microscopy: V. Shkirskiy, ParisCité)
12h45 – 13h45	Lunch
13h45 – 18h45	Visits (2 among Synchrotron Soleil / CEA / AgriPV demonstrator at SIRT)
19 h	SOCIAL EVENT (Young EFC)

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Friday, 30 08 2024. Corrosion mitigation needs in Green Energy Technologies

8h30 – 8h45	Attendance certificate delivery
8h45 – 9h15	Introduction to <b>Thermal Solar</b> (E. Mielgo Garcia, Idonial, visio)
9h15 - 11h00	Principles and stability issues in <b>PhotoVoltaics</b> (D. Suchet, IPVF & M.J. Theelen, TNO)
11h00– 11h15	Coffee break
11h15- 12h45	Principle and corrosion problems in <b>Wind energy</b> : (A. Momber, Muehlhan)
12h45 –14 h	Lunch
14h – 14h45	Common corrosion issues in Green Technology Systems: <b>Electronic devices</b> (R. Ambat, DTU)
14h45 – 15h30	Common corrosion issues in Green Technology Systems: <b>Batteries</b> (J. Swiatowska, ENSCP)
15h30– 15h45	Coffee break
15h 45 – 17h45	Tea time and Working groups activities around “R&D opportunities and new jobs in green energy sector” with animation by industrial and academic partners.

Taking place at :

Institut Photovoltaïque d’Île-de-France (IPVF)

18, Boulevard Thomas Gobert

91120 Palaiseau (France)



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