

INTRODUCTION TO THE USE OF ELECTROCHEMICAL / ELECTROLYTIC TECHNIQUES IN METAL CONSERVATION

PROGRAMME

	Time-table	25.09	26.09	27.09	28.09	29.09
Morning sessions	9:00 – 10:45	Objectives L1: a bit of history	Review of past results L 3: Metals in solution: parameters affecting E_{corr}	Review of past results Pract 3a: use of Pourbaix diagrams: from theory to practice	Review of past results L 5: Theoretical approach of the polarisation of metals: use of a potentiostat	Review of past results L 7: Localised treatment using Pleco
	Coffee break					
	11:15 – 13:00	L 2a Basic principles - E_{corr} : Definition and measurement	Pract 2: Parameters affecting E_{corr}	Pract 3b: use of Pourbaix diagrams: from theory to practice	Pract 5: Introduction to the use of potentiostat: voltammetry and chrono-amperometric plots	Pract 7: Use of Pleco and discussion around artefacts
Lunch break						
Afternoon sessions	13:30 – 15:00	Pract 1: Measurement of E_{corr} - Meaning of E_{corr} measurements	L 4: Influence of pH on E_{corr} (Pourbaix diagrams): corrosion prediction	Pract 4: Discussion around artefacts: identification of metals through MiCorr application and definition of treatment conditions	L 6: Practical approach of the polarisation of metals: use of a power supply Pract 6: Setup of electrolytic devices and treatment parameters using power supplies	
	Coffee break					
	15:30 – 17:00	L 2b Basic principles - E_{corr} : Definition and measurement	Appl 1: Application of electrochemical techniques in conservation: presentation I	Appl 2: DiscoveryMat application qualitative analysis of alloys	Appl 3 Application of electrochemical techniques in conservation: presentation II	

L: lectures; **Pract** : experimental work in the lab; **Appl:** lectures presenting case studies