

COST training school: New lights on ancient materials 2010

European training school on the analysis of ancient artefacts using synchrotron radiation
Advanced X-ray studies and related sample preparation (sediments, wood, bones, clays, ceramics)
Synchrotron SOLEIL, Gif-sur-Yvette, France

	Thursday 27 May	Friday 28 May	Saturday 29 May	Sunday 30 May	Monday 31 May	Tuesday 1 June	Wednesday 2 June								
	salle pavillon d'accueil (PA50)	salle cœur synchrotron (CO.1.01)	grand amphithéâtre	salle pavillon d'accueil (PA50)	salle pavillon d'accueil (PA50)	grand amphithéâtre, then beamlines	grand amphithéâtre								
09:00	Bus from Le Guichet station at 8:30							09:00							
10:00	A1. Welcome. P. MORIN, L. BERTRAND A2. Basics of synchrotron radiation methods for archaeology, palaeontology and palaeoenvironments. L. BERTRAND, SOLEIL, France.	C1. Synchrotron X-ray diffraction. J.-L. HODEAU, ESRF, France.	C3. Synchrotron X-ray absorption and fluorescence. Gema MARTINEZ-CRIADO, ESRF, France.	E4. Tutorial discussion groups.	C5. Small angle X-ray scattering. A. PETUKHOV, Utrecht University, The Netherlands.	B5. Mechanical preparation - Ultramicrotomy. H. GNAEGI, DIATOME, Suisse.		D2. Ultrastructural and chemical study of microfossils by scanning transmission X-ray microscopy. S. BERNARD, GFZ Potsdam, Germany.							
11:00	E1. Visit: safety information	C2. Ancient pottery studied with X-ray diffraction. Ph. SCIAU, CEMES, France.	C4. Petrified woods. A. KUCZUMOW, Catholic University of Lublin, Poland.		C6. Bone alteration. T. WESS, Cardiff, UK.	E5. DIFFABS, S. REGUER	E5. LUCIA, D. VANTELON	E5. CRISTAL, S. RAVY	E7. Presentations of the beamlines experiments by each group.						
12:00	E2. Visit: SOLEIL					E5. SWING, J. PEREZ									
13:00	BUFFET salle PA50.1.12: 13:00 salle cœur synchrotron (CO.1.01)	LUNCH at SOLEIL restaurant: 13:00 SOLEIL, CCME or CSNSM	LUNCH at SOLEIL restaurant: 13:00 grand amphithéâtre		LUNCH at SOLEIL restaurant: 13:00 SOLEIL, CCME or CSNSM	LUNCH at SOLEIL restaurant: 13:00 beamlines		LUNCH at SOLEIL restaurant: 13:00 grand amphithéâtre							
14:00															
15:00	A3. Synchrotron radiation-matter interactions. S. RAVY, SOLEIL, France.	B3. Ultramicrotomy. CCME, Paris 11 Univ. B4. FIB demo. F. FORTUNA, CSNSM, Paris 11 Univ.	D1. Soft X-rays analysis. R. BELKHOUCHE, SOLEIL, France.	F2. Visit. Musée des Antiquités Nationales, Saint-Germain-en-Laye. At 15:30.	B3. Ultramicrotomy. CCME, Paris 11 Univ. B4. FIB demo. F. FORTUNA, CSNSM, Paris 11 Univ.	E5. DIFFABS, S. REGUER	E5. LUCIA, D. VANTELON	E5. CRISTAL, S. RAVY	E5. SWING, J. PEREZ	A5. Novel and future approaches in high brilliance laboratory X-ray compact sources. A. MICHETTE, King's College London, UK.					
16:00	B1. Mechanical preparation - Introduction. J. AYACHE, Institut Gustave Roussy, Paris, France.														E8. Questionnaire and COST presentation.
17:00	B2. Ion-based preparation techniques. R. WIRTH, GFZ Potsdam, Germany.														
18:00															
19:00	DINNER at SOLEIL restaurant: 19:30 E3. Groups for tutorials		Dinner of the school. Palais de Tokyo, Paris 16. At 20:00.			DINNER at SOLEIL restaurant: 19:30			E6. Preparation of the presentations.						

A. General introduction (5)
General presentation of synchrotron techniques specificities oriented towards users from archaeology.

B. Sample preparation (3+2)
Basics of mechanical (polishing, microtomy) and ion-based (FIB) preparation. Practical work

C. Hard X-rays analysis (6)

D. Soft X-rays analysis (2+1)

E. Synchrotron tutorials (8) Practical work

