

Program

Thursday June 20th, 2024

12:00 – 14:00 *Registration // welcome coffee*

14:00 – 14:10 *Welcome*

14:10 – 14:40 *LUCIA Beamline Manager talk*
Delphine Vantelon

Chairperson: Ana Pradas

14:40 – 15:10 *Intérêt des cristaux KTP dans les mesures XANES sur LUCIA : Applications aux matériaux argileux naturels et synthétiques*
Erwan Paineau - *Laboratoire de Physique des Solides, Orsay, France*

15:10 – 15:30 *Impact of plastic degradation on their metallic additives release in the environment*
Imane Khatib - *Géosciences Rennes, France*

15:30 – 15:50 *Detection of titanium nanoparticles in human, animal and infant formula milk*
Anne Burtay - *INRAE, Domaine de Vilvert, Jouy-en-Josas, France*

15:50 – 16:20 *Coffee break*

Chairperson: Nicolas Trcera

16:20 – 16:50 *Le XANES sur LUCIA: Mesures du redox du fer dans des échantillons naturels et synthétiques*
Nathalie Bolfan-Casanova - *Laboratoire Magmas et Volcans, Aubière, France*

16:50 – 17:00 *Tiny but tough: LUCIA and the physico-chemistry of colloids in environmental science*
Jérôme Rose - *CEREGE, Aix-en-Provence, France*

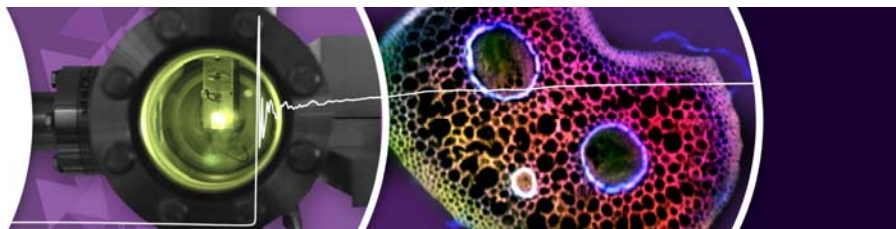
17:00 – 17:20 *Des solides aux liquides à haute température vue par l'absorption de rayon X aux seuils d'éléments légers*
Daniel R. Neuville - *Institut de Physique du Globe de Paris, France*

17:20 – 17:50 *Coffee break*

LUCIA Evolutions and perspectives
17:50 – 19:15 *Technical communications from the beamline staff*
Round table

19:15 - 19:45 *Break*

19:45 *Dining Aperitif - Hall of the Central building*



Friday June 21st, 2024

Chairperson: **Pierre Lagarde**

09:00 – 09:10 Welcome

09:10 – 09:40 Surface science studies in the light of LUCIA

Rémi Lazzari - Institut des NanoSciences de Paris, France

09:40 – 10:00 How does nanomagnetite stoichiometry (Fe(II)/Fe(III)) influence the surface speciation of trivalent chromium

Jaimy Scaria - Géosciences Rennes, France

10:00 – 10:20 Investigating volatile element local environment in glasses using X-ray absorption spectroscopy

Yann Morizet - Laboratoire de Planétologie et Géosciences and Institut des Matériaux de Nantes Jean Rouxel, Nantes, France

10:20 – 10:50 Coffee break

Chairperson: **Delphine Vantelon**

10:50 – 11:20 Outcomes of LUCIA beamline for deciphering geogenic and anthropogenic Fe cycle in the surface environment

Gildas Ratié - Laboratoire de Planétologie et Géosciences, Nantes, France

11:20 – 11:40 Characterization of titanium-enriched microplastics during human in vitro and animal in vivo mussel digestions, using synchrotron techniques

Nawel Belkessa - Institut de Chimie de Nice, France

11:40 – 12:00 Deciphering the processes of concentration of niobium (Nb) during hydrothermal and supergene weathering using the LUCIA beamline

Quentin Bollaert - IMPMC, Sorbonne Université, Paris, France and KU Leuven, Belgique

12:00 – 12:20 Impact of Ca, Al and Si on the structural organization of Fe-OM nanoaggregates

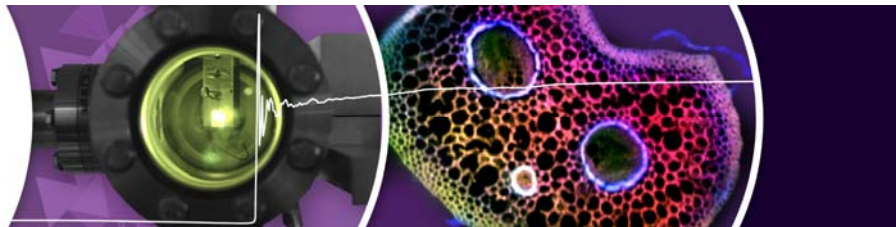
Anthony Beauvois - Synchrotron SOLEIL, Saint-Aubin, France

12:20 - 14:00 Lunch at SOLEIL restaurant

Chairperson: **Benedikt Lassalle**

14:00 – 14:30 Comprendre la structure locale des verres : 20 ans de contributions de LUCIA

Laurent Cormier - IMPMC, Sorbonne Université, Paris, France



- 14:30 – 14:50

 Investigations on the preservation and conservation of paleontological heritage through sulfur XANES at LUCIA: The case of pyritized fossils

Giliane P. Odin - *Laboratoire Géomatériaux et Environnement, Marne-la-Vallée, France*
- 14:50 – 15:10

 In solution identification of the lysine-cysteine redox switch with a NOS bridge in transaldolase by sulfur K-edge X-ray absorption spectroscopy

Ashish Tamhankar - *Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr, Germany*
- 15:10 – 15:30

 XAS assessment of chromium release from ferralsols developed from ultramafic rocks (Niquelândia, Brazil)

Cécile Quantin - *Géosciences, Université Paris-Saclay, Orsay, France*
- 15 :30

 Workshop conclusions
- 15:40

 End of the workshop