

LEAPS-INNOV Battery Research Forum

Round Table Discussions and visit to ALBA instruments

Tue 30th January 2024

Forum Participants will be asked to choose a group for round table discussion upon registration on 29/01.

13:30-15:00 Round table discussions on main challenges

(5 groups of 15-25 people in 5 parallel rooms with 2 talks of around 10min to stimulate the discussion; each group is colour-coded to facilitate attendees' participation in the respective group):

- 1- Technical challenges in battery operando research using electrons and soft x-rays.

Meeting room (underground): Maxwell Auditorium

Chair: Paul Shearing (Faraday Institutions / Oxford University)

- a. Operando at low X-ray energies or with electrons (Juan Jesus Velasco)
- b. InCAEM project (Lucia Aballe & Andrea Sorrentino)

- 2- Challenges in accessing surfaces and interfaces in battery research.

Meeting room (first floor): Marie Curie

Chair: Lorenzo Stievano (ICGM - Univ Montpellier)

- a. SR-FTIR as a powerful tool for batteries applications (Ibraheem Yousef)
- b. GISAXS as a powerful tool to access SEI (Eduardo Solano)

- 3- Challenges in automated fitting and treating big data sets for automated pipelines.

Meeting room (second floor): Hodgkin

Chair: Marine Reynaud (CICenergiGUNE)

- a. Statistical approaches or automated fitting for treating big data sets (Oleg Usoltsev)
- b. The inhouse developed Fast Data Analyzer (Carlo Marini)

- 4- Challenges in multimodal approaches in battery research.

Meeting room (first floor): Niels Bohr

Chair: Benedetto Bozzini (POLIMI)

- a. Multimodal approach to investigate Zn-ion flow batteries (Dino Tonti, ICMAB)
- b. Combining synchrotron techniques to unlock Li- and Mn-rich battery performances (Laura Simonelli)

- 5- Challenges in users support and industrials need in the battery fields.

Meeting room (second floor): Rosalind Franklin

Chair: Sandrine Lyonnard (CEA)

- a. The interest in ancillary labs supporting experiments at big facilities (François Fauth)
- b. Safety line project (Jordi Jacas, IREC)

15:00-16:00 Visit to a selection of ALBA beamlines

- groups 1-2 will visit MISTRAL(TXM), MIRAS(IR), CIRCE(NAPP), and NCD(SAXS/WAXS)
- groups 3-5 will visit FAXTOR(CT), CLAEISS(XAS/XES), MSPD(XRD), and NOTOS(XAS/XRD)