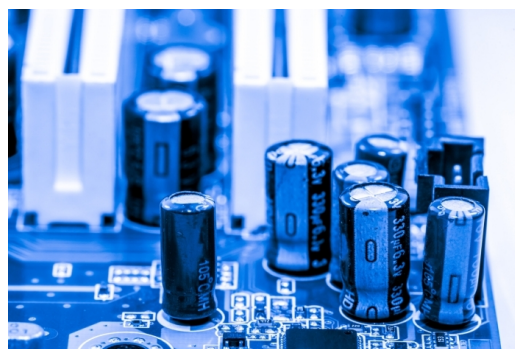


(Photo)-and electrocatalysis at the atomic: from the atomic scale to advanced devices (PECAS-CAT&SCALE)



06.May - 09.May 2024

Cod. Z02-24

Mod.:

Face-to-face

Edition

2024

Activity type

Workshop

Date

06.May - 09.May 2024

Location

Faculty of Chemistry UPV/EHU

Languages

English

Academic Validity

40 hours

Web

<https://pecas2024.dipc.org/>

Organising Committee

Fundación
BBVA



Description

PECAS – CAT&SCALE scopes the integration of electrochemistry and surface science research areas towards the understanding of the nature of the electrode-solution interface at an atomic level. Leading experts across the different disciplines will present the latest experimental and theoretical efforts in the field of photo- and electrochemistry on surfaces, promoting in depth discussions between students and scientific community from both fields.

The seminars will be delivered at the postgraduate level in the fields of surface science and electrochemistry, but introductory lectures will be specially addressed to introduce master and graduate students from Chemistry and/or Physics in each topic covered in the school.

Topics:

- In situ and in operando electrochemistry-surface science techniques and methods
- Energy conversion from photon and chemical energy to electrical energy
- Electrocatalysts for water splitting and CO₂ reduction
- Local active sites on solid surfaces: reactivity of defects
- Chemical engineering and synthesis of photoelectrochemical systems
- Novel materials for electrochemical energy storage
- Electrochemical biosensors
- Theoretical modeling

ORGANIZING COMMITTEE:

Sara Barja (UPV/EHU)

Pelayo García de Arquer - Institut de Ciències Fotòniques (ICFO)

Núria López - Institut Català d'Investigació Química (ICIQ)

Jose Ramon Galan Mascaros - Institut Català d'Investigació Química (ICIQ)

Sixto Giménez - Instituto de Materiales Avanzados (INAM) - UJI

Irene Palacio - Instituto de Ciencia de Materiales de Madrid (ICMM/CSIC)

María del Carmen Giménez López - Centro Singular de Investigación en Química Biológica y Materiales Moleculares (CiQUS)

David Écija, IMDEA Nanoscience

María Escudero - Institut Català de Nanociència i Nanotecnologia (ICN2)

Jordi Arbiol - Institut Català de Nanociència i Nanotecnologia (ICN2)

Objectives

The school PECAS- CAT&SCALE is aimed at promoting various opportunities for interdisciplinary discussion of scientists and students of physics, material science, chemistry and electrochemistry in addition to presentation of new results, ideas and methods in the field of photo- and electrochemical properties of novel materials.

Course specific contributors



Directed by



Sara Barja Martínez

UPV/EHU - DIPC

Sara Barja is currently a Ikerbasque Research Associate at the University of the Basque Country (UPV/EHU) and the Centro de Física de Materiales (CFM). Her work seeks to understand the existing relationships between structure and reactivity in electrocatalysis processes. With a PhD in Physics, she has developed her research career between Spain, the United States, and Germany. She currently coordinates an ERC-StG project that aims to produce H₂ from seawater. For this, she combines the study of catalysts using scanning probe microscopies with atomic resolution and X-ray photoemission spectroscopy under near real operating conditions. Her career has been recognized with the Hypatia 2019 and Ikerbasque 2023 awards. She has participated in various dissemination events such as Naukas, Jakin-mina, or Qué sabemos de...?

Teachers



Andrea Auer

University of Innsbruck



Hendrik Bluhm

FHI Berlin



Jose Ramon Galan-Mascaros

ICIQ



Maria del Carmen Gimenez López

University of Santiago de Compostela



Karoliina Honkala

University of Jyväskylä



Julia Kunze

University of Innsbruck



NURIA LOPEZ

ICIQ



Marko Melander



Herbert Over

Justus Liebig University Giessen



Paramaconi Rodriguez Perez

CIC energiGUNE



Juan Jesús Velasco Vélez

ALBA synchrotron

Registration fees

REGISTRATION FEES	UNTIL 23-04-2024
Fee Waiver	0 EUR
Regular attendant	350,00 EUR

Place

Faculty of Chemistry UPV/EHU

Paseo Manuel Lardizabal 3, 20018 Donostia/San Sebastián

Gipuzkoa