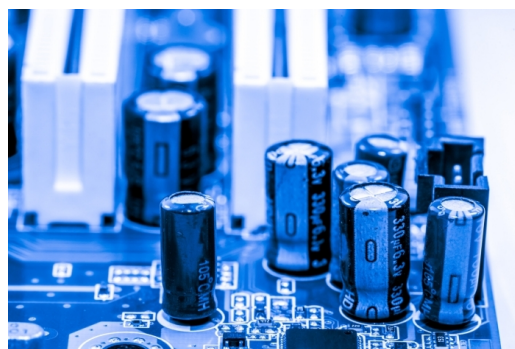




# **(Photo)-and electrocatalysis at the atomic: from the atomic scale to advanced devices (PECAS-CAT&SCALE)**



**06.mai - 09.mai 2024**

**Cod. Z02-24**

**Modalité:**

En personne

**Édition**

2024

**Type d'activité**

Workshop

**Date**

06.mai - 09.mai 2024

**Location**

UPV/EHUko Kimika Fakultatea

**Langues**

Anglais

**Reconnaissance officielle par l'État**

40 heures

**Comité d'organisation**

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 CO<sub>2</sub> 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)

### Objectifs

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.

### Collaborateurs spécifiques au cours



## Directed by



**Sara Barja Martínez**

UPV/EHU - DIPC

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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 H<sub>2</sub> 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...?

# Tarifs inscription

REGISTRATION FEES

JUSQU'AU 23-04-2024

Fee Waiver

0 EUR

Regular attendant

350,00 EUR

# Lieu

Gipuzkoa