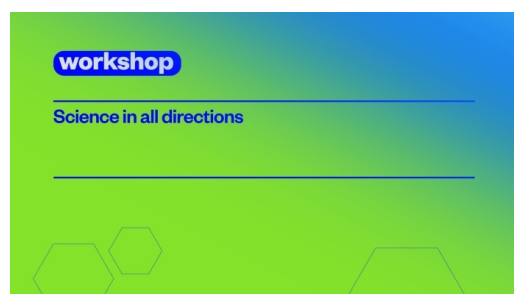




# Photo- and Electrocatalysis at the Atomic Scale (PECAS2022)



**20.Jun - 23.Jun 2022**

**Cod. Z06-22**

**Mod.:**

Face-to-face

**Edition**

2022

**Activity type**

Workshop

**Date**

20.Jun - 23.Jun 2022

**Location**

Materials Physics Center (CSIC-UPV/EHU) and Miramar Palace

**Languages**

English

**Academic Validity**

40 hours

**Web**

<http://pecas2022.dipc.org/>

**Organising Committee**



## Description

The school on PhotoElectroCatalysis at the Atomic Scale (PECAS) 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.

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 (Chair) (Ikerbasque, CFM-UPV/EHU, DIPC)

Celia Rogero (CFM-CSIC-UPV/EHU, DIPC)

Ethan Crumlin (Lawrence Berkeley National Laboratory)

Martin Sterrer (University of Graz)

### & Red de Excelencia CAT&SCALE:

Nuria López (ICIQ)

José Ramón Galán (ICIQ)

Sixto Gimenez (UJI)

Francisca López (ICMM)

David Écija (IMDEA Nanoscience)

Jordi Arbiol (ICN2)

### Objectives

PECAS 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.

### Course specific contributors



SPECSGROUP

## Directed by



**Sara Barja Martínez**

UPV/EHU - DIPC

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Sara Barja is currently a Ramón y Cajal researcher at Centro de Física de Materiales (CFM) and the University of the Basque Country (UPV/EHU). Barja conducts research in experimental surface science, investigating the atomic-scale properties of two-dimensional materials and metal-oxides by scanning probe microscopy, with the interest to unravel their structure-reactivity relationships in electrocatalysis, complemented by in situ X-Ray photoemission spectroscopy. She began her academic career by completing a PhD in Physics in 2012 at the Universidad Autónoma de Madrid (UAM, Spain). In 2013 she awarded a IOF Marie Curie Action, working as a post-doc at the Lawrence Berkeley National Laboratory (LBNL, USA) and the Max Planck Institute for Solid State Research in Stuttgart (MPI-FKF, Germany). In 2016 she joined the CFM-UPV/EHU as Ikerbasque Research fellow. She is also a recipient of several prestigious awards, including a Starting Research Grant from the European Research Council (ERC, 2021), the Hypatia prize for young talent in Science (2019) and the recognition as “Asturiana del mes” (2022).

# Registration fees

REGISTRATION FEES

UNTIL 13-06-2022

Regular Attendant

300,00 EUR

## **Place**

### **Materials Physics Center (CSIC-UPV/EHU) and Miramar Palace**

Manuel de Lardizabal, 4. 20018 San Sebastián and P<sup>o</sup> de Miraconcha nº 48. San Sebastián  
Gipuzkoa