



# **XI AUSE Conference** **VI ALBA Users Meeting**

**Oviedo**  
**2-6 September 2024**



Universidad de Oviedo





**2022**



**2019**



**2017**



**2015**



**2013**

# WELCOME

Welcome to the **joint XI AUSE conference and VI ALBA User Meeting at the town of Oviedo**. In a time of new funding opportunities and the need to address the big challenges of our time, the meeting is a platform for celebrating great scientific success, exchange and align within the community and learn more about what is planned to make your X-ray research infrastructures ready for your needs. Perhaps even more important, it will give you a voice to communicate your needs as well as ideas to improve the services.

This conference joins, as usual in the last decade, the **biannual AUSE meetings with the ALBA User meeting**, reflecting a long success story of community growth and community engagement with its X-ray research infrastructures. Alternating between hosting universities and ALBA as venue, the meeting series is a symbol and expression for the great integration of the facility with its user community and the open welcome culture to new communities.

The meeting is connecting three building elements: the first one dedicated to the **AUSE activities**, including an update on the **Spanish ESRF CRG beamline SpLine**, the second focused on **ALBA and its upgrade ALBA II**, and the last session dedicated to the **Spanish XFEL Hub activities**.

## WiFi

**Network:** AUSE\_2024 WiFi  
**Password:** Sincrotron.24

# SPONSORS



# SPECSGROUP



# COMMITTEES

## CONFERENCE CHAIRS

Caterina Biscari, ALBA Synchrotron Director  
Inés Muñoz, AUSE President

## LOCAL ORGANISING COMMITTEE (Universidad de Oviedo)

Aurelio Hierro  
Alicia Estela Herguedas Alonso  
Carlos Quirós Fernández  
María Vélez Fraga  
Victoria Vega Fernández Rodríguez

## ORGANISING COMMITTEE

Bárbara Calisto, AUSE, ALBA Synchrotron  
Inmaculada Ramos-Lerate, AUSE, Universidad de Cádiz  
Juan Rubio, AUSE, ESRF  
Wojciech Gawelda, AUSE, IMDEA-UAM

## SCIENTIFIC COMMITTEE

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Jose Luis Garcia-Muñoz, ICMAB-CSIC  
José Manuel Martín, IQF-CSIC  
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Judith Juanhuix, ALBA Synchrotron  
Klaus Attenkofer, ALBA Synchrotron  
Lucía Aballe, ALBA Synchrotron  
Manuel Valvidares, ALBA Synchrotron  
María Vélez Fraga, Universidad Oviedo  
Ramon Pons, IQAC-CSIC  
Wojciech Gawelda, IMDEA-UAM

# PROGRAM

Monday, 2nd September 2024

## Timetable

11:00 - 13:00	<i>Hall (Edificio del Aulario, Facultad de Geología, Universidad de Oviedo (Oviedo, Spain))</i> Registration & Sponsors' Exhibition
13:00 - 14:30	<i>Hall (Edificio del Aulario, Facultad de Geología, Universidad de Oviedo (Oviedo, Spain))</i> Lunch, Poster & Sponsors' exhibition
14:30 - 14:45	<i>Aula E (Edificio del Aulario, Facultad de Geología, Universidad de Oviedo (Oviedo, Spain))</i> <i>Chair: Aurelio Hierro (Universidad de Oviedo)</i> Opening Irene Diaz Rodriguez, Vicerector of Research, Univ. de Oviedo
14:45 - 15:30	Plenary Speaker Gianluigi A. Botton (Diamond Light Source) Diamond Light Source: Science and updates on the Diamond-II upgrade

<b>Timetable</b> <b>15:30 - 16:00</b>	<b>Session A</b>   Soft Condensed Matter <i>Aula E, Facultad de Geología, Univ. Oviedo</i>	<b>Session B</b>   Advanced Materials for Energy and Sustainable Applications <i>Aula B, Facultad de Geología, Univ. Oviedo</i>
	<b>Keynote Speaker</b> <b>Mari Cruz García-Gutiérrez (IEM-CSIC)</b> Synchrotron radiation in polymer science: techniques and sample environments	<b>Keynote Speaker</b> <b>Enrique G. Michel (IFIMAC, UAM)</b> Understanding Li-ion battery materials with synchrotron radiation
<b>16:00 - 16:20</b>	<b>Esther Rebollar (IQF-Blas Cabrera, CSIC)</b> Structure development during "in-operando" 3-D printing using simultaneous Small and Wide Angle X-ray Scattering measurements	<b>Juan J. Velasco (ALBA Synchrotron)</b> Controlling the number of coordinatively unsaturated iridium oxide active centers for optimize the electrocatalytic oxygen evolution reaction
<b>16:20 - 16:40</b>	<b>Alba Cazorla Moreno (ICMAB-CSIC)</b> Monitoring the structural transformation on thin films of an Asymmetric Benzothieno[3,2-b][1]-benzothiophene Derivative	<b>Cheng Liu (ICMAB-CSIC)</b> Synchrotron radiation to solve the puzzle of capacity limitation in Aqueous Zn-MnO <sub>2</sub> Batteries
<b>16:40 - 17:00</b>	<b>Fernando Garcia Martinez (DESY)</b> Structure and pressure gap in the NO reduction on Rh studied by ambient-pressure HAXPES	<b>Wojciech Olszewski (University of Bialystok)</b> The role of the local structural properties in the electrochemical characteristics of Na <sub>1-x</sub> Fe <sub>1-y</sub> Ni <sub>y</sub> O <sub>2</sub>
<b>17:00 - 17:20</b>	<i>Aula E, Facultad de Geología, Univ. Oviedo</i> <b>Wojciech Gawelda (AUSE) and Barbara Calisto (ALBA Synchrotron)</b> News from ESUO and the NEPHEWS project	
<b>17:20 - 18:00</b>	<i>Aula E, Facultad de Geología, Univ. Oviedo</i> <b>AUSE Assembly</b>	
<b>18:00 - 19:00</b>	<i>Hall, Facultad de Geología, Univ. Oviedo</i> <b>Poster Session, Coffee &amp; Sponsor exhibition</b>	

Tuesday, 3rd September 2024

Timetable

09:00 - 09:45	<i>Aula E (Edificio del Aulario, Facultad de Geología, Univ. Oviedo)</i> <i>Chair: Judith Juanhuix (ALBA Synchrotron)</i> <b>Plenary Speaker - Blake H. Balcomb (Diamond Light Source)</b> XChem: High throughput crystallographic fragment screening and structure enabled fragment progression	
09:45 - 10:15	<b>Session A</b>   Drug Discovery <i>Aula E, Facultad de Geología, Univ. Oviedo</i>	<b>Session B</b>   In-situ and in-operando processes <i>Aula B, Facultad de Geología, Univ. Oviedo</i>
10:15 - 10:35	<b>Keynote Speaker</b> <b>Jose Manuel Martin (IQFR-CSIC)</b> Time-resolved Crystallography: A New Frontier in Drug Discovery	<b>Keynote Speaker</b> <b>Manuel Izquierdo (EuXFEL)</b> Femtosecond soft X-ray photoelectron spectroscopy on solids at the European XFEL
10:35 - 10:55	<b>Ruben Martínez-Buey (Universidad de Salamanca)</b> Structural approaches to identify novel inhibitors of IMP dehydrogenase enzymes	<b>Anna Makarova (Helmholtz-Zentrum Berlin)</b> Catalytic oxidation of CO by step and kink sites of curved Au crystal
10:55 - 11:15	<b>Stefano Pernigo (ALBA Synchrotron)</b> Fostering innovation in drug discovery by automated data collection and X-ray based fragment screening at ALBA	<b>Alexander Missyul (ALBA Synchrotron)</b> In situ powder diffraction as a key for understanding materials behavior in non-ambient atmosphere
11:15 - 11:40	<b>Alba Garay Álvarez (IQF Blas Cabrera-CSIC)</b> Combating Friedreich's Ataxia with Nanobodies: Structural Characterization of complexes with Frataxin	
11:40 - 12:25	<b>Cristina Echevarria Bonet (Universidad de Oviedo)</b> The role of anharmonicity on the thermoelectric properties of half-Heusler alloys	
11:15 - 11:40	<i>Hall, Facultad de Geología, Univ. Oviedo</i> <b>Coffee Break &amp; Sponsor exhibition</b>	
11:40 - 12:25	<i>Aula E (Edificio del Aulario, Facultad de Geología, Univ. Oviedo)</i> <b>Plenary Speaker - Carlos Martí-Gastaldo (ICMol and Universidad de Valencia)</b> Synthetic control of chemical complexity in reticular frameworks	



# Timetable

	<i>Aula E (Edificio del Aulario, Facultad de Geología, Univ. Oviedo)</i>
12:25 - 12:55	Keynote Speaker - <b>Juan Rubio (SpLine ESRF)</b> BM25-SpLine at the ESRF: Status and perspectives
12:55 - 13:15	AUSE Thesis Award - <b>Shiva Shirani (University of Malaga)</b> Advanced Quantitative Synchrotron X-ray Imaging of Cement Micro- and Meso-Structures
13:15 - 13:35	AUSE Thesis Award - <b>Daniel Perez Salinas (ALBA Synchrotron)</b> Inhomogeneity and disorder in ultrafast phase transitions
13:35 -15:00	<i>Hall, Facultad de Geología, Univ. Oviedo</i> Lunch, Poster & Sponsor exhibition
15:00 - 15:45	<i>Chair: José Luis García Muñoz (ICMAB-CSIC)</i> Plenary Speaker - <b>Amalio Fernández-Pacheco (TU Wien)</b> Investigations in three-dimensional nanomagnetism using X-ray techniques
15:45 - 16:15	Keynote Speaker - <b>Antonio Urbina (Universidad P. Navarra, SETN)</b> Neutron scattering as a complementary tool for X-Ray Synchrotron Radiation techniques
16:15 - 17:00	<i>Hall, Facultad de Geología, Univ. Oviedo</i> Poster, Coffee & Sponsor exhibition

Tuesday, 3rd September 2024

Timetable

	<b>Session A</b>   Biotechnology & Biological Sciences <i>Aula E, Facultad de Geología, Univ. Oviedo</i> <i>Chair: Tanja Ducic (ALBA)</i>	<b>Session B</b>   <i>Electronic and Magnetic Matter</i> <i>Aula B, Facultad de Geología, Univ. Oviedo</i> <i>Chair: Maria Velez (Universidad de Oviedo)</i>
<b>17:00 - 17:30</b>	<b>Keynote Speaker</b> <b>Montserrat Soler-Lopez (ESRF)</b> Advancements in Biological Sciences at the European Synchrotron	<b>Keynote Speaker</b> <b>Lucas Perez (UCM)</b> Unveiling the magnetic secrets of cylindrical nanowires with X-ray microscopy
<b>17:30 - 17:50</b>	<b>Alessandra Patera (ALBA Synchrotron)</b> Fast X-ray TomogRaphy Beamline for ALBA	<b>Ji Dai (ALBA Synchrotron)</b> Spin polarized bulk bands with large energy splitting due to Dresselhaus effect in ZnTe(110)
<b>17:50 - 18:10</b>	<b>Hector Dejea (ESRF)</b> Synchrotron-based phase contrast tomography for cardiovascular applications: from rodents to humans	<b>José Luis Garrido Álvarez (Universidad de Oviedo)</b> Structural Analysis by High-Resolution X-Ray Diffraction of Ferromagnetic Lu <sub>2</sub> Fe <sub>17</sub> Melt-Spun Ribbons
<b>18:10 - 18:30</b>		<b>Beatriz Muñoz Cano (IMDEA Nanociencia)</b> Experimental observation of a magnetically induced warping transition in a topological insulator mediated by rare-earth surface dopants using angle-resolved photoemission spectroscopy

## Wednesday, 4th September 2024

<b>Timetable</b>	<i>Aula E (Edificio del Aulario, Facultad de Geología, Univ. Oviedo)</i> <i>Chair: Klaus Attenkofer (ALBA Synchrotron)</i>
<b>09:00 - 09:45</b>	Plenary Speaker - <b>Caterina Biscari (ALBA Synchrotron)</b> ALBA and its future, ALBA II
<b>09:45 - 10:25</b>	<b>Science at ALBA Session</b> <b>Amadeu Llebaria (MCS, IQAC-CSIC)</b> Photopharmacology: light and molecules for dynamic structural crystallography
<b>10:25 - 11:05</b>	<b>Arantazu Mascaraque (UCM)</b> How ARPES can contribute in advanced materials research?
<b>11:05 - 11:30</b>	<i>Hall, Facultad de Geología, Univ. Oviedo</i> Coffee Break & Sponsor exhibition
<b>11:30 - 12:10</b>	<b>Christian Masquelier (UPJV, LRCS)</b> Crystal Chemistry of Important Polyanionic Materials used as Cathodes in Sodium-Ion Batteries: the decisive impact of Synchrotron X-Ray diffraction
<b>12:10 - 12:50</b>	<b>Gonzalo Abellan (ICMol, UV)</b> Two-dimensional Layered Hydroxides for Energy Applications
<b>12:50 - 13:30</b>	<b>Elzbieta Pach (ICMAB-CSIC)</b> In-situ X-Ray Diffraction revealing the reaction mechanism of ultrafast Transient Liquid Assisted Growth of superconducting thin films
<b>13:30 - 15:00</b>	<i>Hall, Facultad de Geología, Univ. Oviedo</i> Lunch, Poster & Sponsor exhibition
<b>15:00 - 15:25</b>	<i>Chair: Montserrat Soler-Lopez (ESRF)</i> <b>ALBA Beamlines Upgrade Program Session</b> <b>Judith Juanhuix (ALBA Synchrotron)</b> Updates from the Life Sciences Section
<b>15:25 - 15:50</b>	<b>Manuel Valvidares (ALBA Synchrotron)</b> Updates from the Electronic and Magnetic Structure of Matter Section
<b>15:50 - 16:15</b>	<b>Carlo Marini (ALBA Synchrotron)</b> Updates from the CHEMAT Section, The Beamline Upgrade Program
<b>16:15 - 16:40</b>	<b>Lucia Aballe (ALBA Synchrotron)</b> Updates from the IMM Section

<b>Timetable</b> <b>16:40 - 17:10</b>	<i>Hall, Facultad de Geología, Univ. Oviedo</i> Coffee Break & Sponsor exhibition	
	<b>Session A</b>   Materials Science <i>Aula E, Facultad de Geología, Univ. Oviedo</i> <i>Chair: Alexander Missyul (ALBA)</i>	<b>Session B</b>   Life Sciences <i>Aula B, Facultad de Geología, Univ. Oviedo</i> <i>Chair: Inés Muñoz (CNIO)</i>
<b>17:10 - 17:30</b>	<b>Iciar Monterrubio (CIC energiGUNE)</b> Building a Materials Acceleration Platform (MAP) for battery materials research: Automated module for the synthesis of inorganic compounds	<b>Marc Corrales (MRC-LMB)</b> Multiscale connectomics for neuroevolution: X-Ray tomography and FIBSEM
<b>17:30 - 17:50</b>	<b>Frederik Schiller (Centro de Física de Materiales)</b> Near ambient pressure oxidation of silver in the presence of steps: electrophilic oxygen and sulphur impurities	<b>Tanja Ducic (ALBA Synchrotron)</b> Macromolecular and structural changes in glioblastoma cell line after carbon dots and riluzole treatments: Synchrotron-based FTIR and X-ray
<b>17:50 - 18:10</b>	<b>Miguel Ángel García Aranda (Universidad de Malaga)</b> 4D nanoimaging of Portland cement hydration	<b>Round Table on Life Sciences</b> 17:50-18:30
<b>18:10 - 18:30</b>	<b>Gloria Subias-Peruga (INMA, CSIC-Univ. Zaragoza)</b> The barocaloric effect in the FeI(5NO2-pap)2 spin-crossover complex via low-pressure synchrotron powder X-ray diffraction	
<b>20:00</b>	<b>Conference dinner at Restaurant Ruaquince</b> <i>C. Rúa, 15, 33003 Oviedo, Asturias</i>	

<b>Timetable</b>	Aula E (Edificio del Aulario, Facultad de Geología, Univ. Oviedo)	
<b>09:00 - 09:45</b>	<p><i>Chair: Lucía Aballe (ALBA Synchrotron)</i></p> <p><b>Plenary Speaker</b>  <b>Santiago García-Granda</b>  <b>(CINN-CSIC, U. Oviedo and IUCr President)</b></p> <p>Design of processable polymeric carbon nitride materials for catalytic applications</p>	
	<p><b>Session A</b>   Magnetism  Aula E, Facultad de Geología, Univ. Oviedo  <i>Chair: Manuel Valvidares (ALBA)</i></p>	<p><b>Session B</b>   Multi-modal studies  Aula B, Facultad de Geología, Univ. Oviedo  <i>Chair: Lucía Aballe (ALBA)</i></p>
<b>09:45 - 10:05</b>	<p><b>Massimo Tallarida</b>  <b>(ALBA Synchrotron)</b></p> <p>Searching for monolayer flakes at LOREA</p>	<p><b>Iris Henríquez Valido (UAB-IPREM)</b></p> <p>Multi-scale and multimodal imaging combining NanoSIMS and Synchrotron techniques</p>
<b>10:05 - 10:25</b>	<p><b>A. Estela Herguedas-Alonso</b>  <b>(Universidad de Oviedo)</b></p> <p>The transition of magnetic textures from quasi 2D to 3D microstructures</p>	<p><b>Ignacio José Villar García</b>  <b>(CEU San Pablo University)</b></p> <p>XPS, XAFS, XRD and FTIR Operando Studies of a Vanadium based (H2V3O8) Lithium-ion Battery at ALBA beamlines</p>
<b>10:25 - 10:45</b>	<p><b>Sofia de Oliveira Parreiras</b>  <b>(IMDEA Nanociencia)</b></p> <p>Engineering of organolanthanide sandwich complexes by on-surface synthesis</p>	<p><b>María González Ingelmo</b>  <b>(INCAR-CSIC)</b></p> <p>Ni and Fe Doped Graphene Aerogels Prepared by Freeze-Casting: Investigating the Effect of Fe through In Situ Synchrotron Characterization</p>
<b>10:45 - 11:05</b>	<p><b>Kevin Garcia Diez (ICN2-ALBA)</b></p> <p>Electronic properties of Bismuth monolayers grown on metallic substrates</p>	<p><b>Laia Pascua Solé (UPC)</b></p> <p>Impact of Co-doping on Pd/Al2O3 Catalysts for Methane Oxidation: A Characterization Study</p>
<b>11:05 - 11:30</b>	<p><i>Hall, Facultad de Geología, Univ. Oviedo</i></p> <p><b>Coffee Break &amp; Sponsor exhibition</b></p>	

## Thursday, 5th September 2024

<b>Timetable</b>	<i>Aula E (Edificio del Aulario, Facultad de Geología, Univ. Oviedo)</i> <i>Chair: Alejandro Sánchez (ALBA)</i> <b>Oscar Matilla (ALBA Synchrotron)</b> More Than Data: Computing Services for Synchrotron Users
<b>11:30 - 11:50</b>	
<b>11:50 - 12:10</b>	<b>Barbara Calisto (ALBA Synchrotron)</b> ALBA Industrial Program
<b>12:10 - 13:30</b>	<b>Moderator: Klaus Attenkofer (ALBA Synchrotron)</b> <b>Round Table: The Next Generation Light Sources</b>
<b>13:30 - 15:00</b>	<i>Hall, Facultad de Geología, Univ. Oviedo</i> Group Photo, Lunch, Poster & Sponsor exhibition
<b>15:00 - 15:45</b>	<i>Chairs: W. Gawelda (AUSE, IMDEA-UAM), J.M. Martín (IQF-CSIC)</i> <b>Plenary Speaker Roberto Alonso Mori (LCLS-SLAC)</b> Using LCLS to study ultrafast structural and electronic changes in bio and condensed phase chemistry systems
<b>15:45 - 16:05</b>	<i>XFEL session</i> <b>Yifeng Jiang (EuXFEL)</b> Capturing ultrafast molecular motions and lattice dynamic response in a spin crossover thin film using femtosecond electron diffraction and X-ray diffraction
<b>16:05 - 16:25</b>	<b>Rebeca Castillo (MPI Mulheim)</b> Investigation on electronic structure and reactivity in heterometallic proteins using femtosecond X-ray absorption spectroscopy
<b>16:25 - 16:45</b>	<b>Ben van Kuiken (EuXFEL)</b> Ultrafast soft X-ray investigations of solution phase molecular photochemistry and photophysics at EuXFEL
<b>16:45 - 17:10</b>	<i>Hall, Facultad de Geología, Univ. Oviedo</i> Coffee Break & Sponsor exhibition
<b>17:10 - 17:40</b>	<b>Keynote Speaker</b> <b>Filipe Maia (Uppsala University)</b> Ultrafast biological imaging at the European XFEL, without crystals
<b>17:40 - 18:00</b>	<b>Jos Kamps (Diamond Light Source)</b> Expanding drop on fixed target approaches using droplet addition
<b>18:00 - 18:20</b>	<b>Cristian Svetina (IMDEA Nanociencia)</b> The long path to extend transient grating spectroscopy into the X-rays
<b>18:20 - 18:40</b>	<b>Ángel Fernández Rodríguez (EuXFEL)</b> Imaging femtosecond laser-induced lattice distortions inside crystalline semiconductors by Ultrafast Dynamical Diffraction

<b>Timetable</b>	<p>CoDI workshop  <i>Aula E (Edificio del Aulario, Facultad de Geología, Univ. Oviedo)</i>  <i>Chairs: M.A. Garcia Aranda (Univ. Malaga), A.Fernández Rodriguez (EuXFEL)</i></p>
<b>09:00 - 09:30</b>	<p><b>Irene Calvo (Univ. Zaragoza)</b>  Leveraging X-ray coherence to probe the complexity of materials under realistic conditions</p>
<b>09:30 - 10:00</b>	<p><b>Virginie Chamard (Univ. Marseille)</b>  Bragg Coherent Diffraction Imaging: from simple particles to complex crystalline materials</p>
<b>10:00 - 10:30</b>	<p><b>Pablo Villanueva-Perez (University of Lund)</b>  Coherent imaging opportunities at diffraction-limited storage rings <b>(remote talk)</b></p>
<b>10:30 - 11:00</b>	<p><i>Hall, Facultad de Geología, Univ. Oviedo</i>  Coffee Break</p>
<b>11:00 - 11:30</b>	<p><b>Angel Rodríguez-Fernández (EuXFEL)</b>  CoDI, Coherent Diffraction Imaging BL at ALBA II - technical details</p>
<b>11:30 - 11:50</b>	<p><b>Ana Diaz (PSI)</b>  Non-destructive imaging of computer chips on the nanoscale by X-ray ptychography</p>
<b>11:50 - 12:10</b>	<p><b>Miguel A. G. Aranda (Universidad de Malaga)</b>  X-ray nanoimaging of cement hydration</p>
<b>12:10 - 12:30</b>	<p><b>Catalin Popescu (ALBA Synchrotron)</b>  X-ray nanodiffraction as a probe for structural dynamics in Earth and Planetary sciences <b>(remote talk)</b></p>
<b>12:30 - 12:50</b>	<p><b>Allan Johnson (IMDEA Nanociencia)</b>  Imaging phase co-existence in quantum materials <b>(remote talk)</b></p>
<b>12:50 - 13:10</b>	<p><b>José Solla (Univ. Alicante), Victor de la Peña (IMDEA Energia)</b>  X-ray nanoimaging in photo-electrocatalysis <b>(remote talk)</b></p>
<b>13:10 - 13:30</b>	<p><b>Miguel Anaya (Univ. Sevilla)</b>  X-ray nanoimaging of optoelectronic materials <b>(remote talk)</b></p>
<b>13:30 - 13:50</b>	<p><b>Sandra Ruiz Gómez (ALBA Synchrotron)</b>  Unveiling New Frontiers in spintronics through Multi-Length Scale Imaging and Correlative Microscopy</p>
<b>13:50 - 14:30</b>	<p>Round table including future actions</p>

# POSTERS

## **#110 Javier Ignacio Díaz Fernández**

Large segregation to the surface of the rare earth in NdCo<sub>5</sub> amorphous thin films with perpendicular magnetic anisotropy probed by hard X ray photoemission

## **#111 Alicia Estela Herguedas Alonso**

X-ray transmission microscopy of dipolar-coupled bilayers with crossed anisotropies for reconfigurable spin wave transport

## **#116 Angel Rodriguez Fernandez**

Materials Imaging and Dynamics Instrument at the European XFEL Facility

## **#127 Beatriz Muñoz Cano**

Effects on the topological surface state induced by Er magnetic doping in the prototypical topological insulator Bi<sub>2</sub>Te<sub>3</sub> studied by photoemission spectroscopy

## **#131 Mariam Barawi Moran**

The potential of in situ XAS to reveal the role of aliovalent dopants in TiO<sub>2</sub> nanocrystals for advanced energy storage and smart windows

## **#139 Lucia Aballe Aramburu**

RIANA - Research Infrastructure Access in NANoscience & nanotechnology

## **#140 Inmaculada Ramos Lerate**

Preliminary Studies for the Use of Sludges from the Petroleum Industry as Agricultural Fertilizers. Characterization by XANES

## **#144 Julia Herrero Albillos**

Morphology and dynamics of domains and domain walls through asymmetric hole density-graduated 2D-arrays

## **#145 Alicia Estela Herguedas Alonso**

GUI for magnetic imaging and tomography in MISTRAL

## **#147 Alicia Estela Herguedas Alonso**

Normalization for visualization of weak magnetic signals at MISTRAL beamline

## **#148 Antonio Urbina**

In operando XRD study of Bi<sub>2</sub>O<sub>3</sub>, h-MoO<sub>3</sub> and MnO<sub>2</sub> electrodes during charge/discharge processes of Zn batteries



**#150 Jose Luis García-Muñoz; Marti Gich**

Tuning the magnetic properties of epsilon-Fe<sub>2</sub>O<sub>3</sub> nanoparticles by Cr-doping

**#154 Nicolas Soler**

Bridging Science and IT: ALBA's Scientific Data Management Section

**#168 Juan Francisco Hidalgo Lopez**

Dynamic re-shaping of single Au NRs in colloidal suspension observed with ultrafast coherent diffractive imaging

**#173 Camilo Andrés Jaramillo Hernández**

Influence of Crystallographic Structure on the OER Performance of Co & Ni-based Layered Hydroxides

**#176 Josep Roqué Rosell**

Applying X-ray Absorption Spectroscopy (XAS) at ALBA to the Study of Heavy Metal Pollution in Marine Sediments

**#179 Wojciech Gawelda**

NEXT - An international network for Nonlinear Extreme ultraviolet to hard X-ray Techniques

**#180 José Manuel Martín García**

Spain XFEL Hub: A bridge between the Spanish research community and XFEL facilities

**#181 Elizabeth Vergara**

Electron transfer-induced structural changes in prion proteins studied by ultrafast X-ray absorption spectroscopy

**#186 Carlos Quirós**

In-situ micro-Laue x-ray diffraction strain mapping of piezoelectric actuators

**#193 Seyedeh Leila Panahi**

The Methodology Group at ALBA: Bridging Disciplines to Innovate Analysis in Science and Industry

**#194 Juan J. Velasco**

3Sbar: The new HAXPES/SXRD ALBA synchrotron beamline







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**Oviedo**  
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