Curriculum Vitae
Jordi Arbiol, ICREA Research Professor arbiol@icrea.cat
Leader of the Group of Advanced Electron Nanoscopy (GAe-N) www.gaen.cat
Catalan Institute of Nanoscience and Nanotechnology (ICN2)
CSIC and BIST Date of birth: 24th Feb. 1975
ResearcherID: **B-6048-2008** ORCID: **0000-0002-0695-1726**

EDUCATION

1997-2001	**PhD in Physics**, Universitat de Barcelona, Spain (**PhD Extraordinary Award**, 19th July 2001) – highest category jury unanimous "**Excellent Cum Laude**". Thesis: "Metal Additive Distribution in TiO_2 and SnO_2 Semiconductor Gas Sensor Nanostructured Materials"
1997-1999	**MSc Honours** in Electronic and Optical Materials (MSc), Universitat de Barcelona, Spain
1993-1997	**BA in Physics** at Universitat de Barcelona, Spain

PROFESSIONAL EXPERIENCE

2015-Present	**ICREA Research Professor** at Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain. Leader of the Group of Advanced Electron Nanoscopy (GAe-N): www.gaen.cat
2009-2015	**ICREA Research Professor** at Institut de Ciència de Materials de Barcelona, (ICMAB-CSIC), Spain
2001-2009	**Assistant Professor** at Universitat de Barcelona (UB), Spain
2000	**Research Internship** at CEMES-CNRS, Toulouse (France)
1997	**ERASMUS Student – Research Internship** at LAAS-CNRS, Toulouse (France)

MEMBER OF INTERNATIONAL SCIENTIFIC COMMITTEES AND MANAGERIAL ACTIVITIES

2022-Present	**Scientific Coordinator of the Joint Electron Microscopy Center at ALBA Sync. (JEMCA)**
2018-2026	**Executive Board Member International Federation of Societies for Microscopy (IFSM)**
2017-2021	**President** of the **Spanish Microscopy Society (SME)**
2009-2021	**Executive Board Member** of the Spanish Microscopy Society (SME).
2021-Present	**Founding Member of e-DREAM** (European Distributed Research Infrastructure for Advanced Electron Microscopy) – **Leader of the *Data Policy* and co-Leader of the *Hardware*** e-DREAM WGs**.**
2021-Present	**Chair of the ICN2 Internationalization Committee.**
2021-Present	**Member of the Internal Assessment Committee (CAI)** at the BIST Dolors Aleu Graduate Centre (DAGC) for the **BIST Master** of Multidisciplinary Research in Experimental Sciences (MMRES).
2020-Present	Member of the ICN2 Psychosocial Working Group Committee
2018-Present	Member of the ICN2 Investment Committee
2017-Present	Member of the ICN2 PhD Programme Committee
2017-Present	**Member of the Research Committee** at the **Barcelona Institute of Science and Technology (BIST)**
2017-Present	**Co-chair of the Microscopy WG at BIST**
2016-Present	**Member of the Materials Science PhD Program Committee** at Univ. Autònoma Barcelona (UAB)
2018-2025	**Coordinator of the Nanocharacterization Transversal Area at the ICN2 Severo Ochoa Programme Committee.**
2013-2017	**Vice-President** of the **Spanish Microscopy Society (SME)**
2013-Present	**Member of the Scientific Committee** at Centro Nacional de Microscopía Electrónica **(CNME),** Universidad Complutense de Madrid (UCM), Spain
2009-2015	**Scientific Supervisor** for the Electron Microscopy Facilities at ICMAB-CSIC
2011-Present	**Participation in Thesis Committees (Member of the Jury) in 22 PhD Theses:** at Aahrus Univ. (1), IIT Genova (7), CEA Grenoble (1), McMaster Univ. (1), Lund Univ. (as Opponent) (1), EPFL (1), TU Eindhoven (2), UB (4), UCA (2), UPC (1), UAB (1)
2010-Present	**Member of Jury Master Thesis:** EPFL (5), UB (2)
2010-2012	Member of the **Evaluation Committee** for the PhD Extraordinary Awards on Materials Science at Universitat Autònoma de Barcelona (UAB): 2008-2009; 2009-2010; 2010-2011
2012	Member of the **Evaluation Committee** to decide the candidate for the position of Head of the Electron Microscopy Division within the Institut Català de Nanotecnologia (ICN)
2007-Present	Administrator and Creator of **FOROTEM**, Virtual WEB Forum for Electron Microscopy
2006-Present	**Research Expert Consultant** in **Negotiation Boards** to acquire Electron Microscopes in Universitat de Barcelona (UB), Instituto de Nanociencia de Aragón (INA), Universidad de Valladolid, ICMAB-CSIC, Catalonia Institute for Energy Research (IREC) and ICN.
2006-2008	**Coordinator of the educational team** "CARACT" from Electronics Department at UB, in Master in Physical Engineering and Master in Nanoscience and Nanotechnology (EHEA)
2005-2009	**Elected Member of the Physics Faculty Board** at Universitat de Barcelona

REVIEWING AND EVALUATION ACTIVITIES

Regular reviewer for materials science, nanotech., appl. physics, microscopy and energy, including: ***Nature, Science, Nature Mater., Joule, Nature Catal., Chem, Adv. Mater., Adv. Ener. Mater., App. Cat. B, Nano Ener., Adv. Funct. Mat., ACS Nano, Nano Lett., Nature Com., Ang. Chem., JACS, …***

2023-Present	**Associate Editor at Nano Letters, American Chemical Society (ACS)**
2021-Present	**Editorial Advisory Board member** for **ACS Measurement Science Au**
2023	**Chair of the Physics Panel** for the international evaluation of the research activities at Palacký University in Olomouc (Czech Republic)
2022-2023	**Expert Panel Member** for **HORIZON-INFRA-2022 Calls (EU)**
2023	**Expert Panel Member** for the **Foundation for Polish Science (FNP)** (Poland)
2021-2022	**Expert Panel Member** for **The Research Council of Norway (RCN)** (Norway)
2019-2023	**Member** of the **Transnational Access Proposal Evaluation Committee (TAPEC)** for the **EU ESTEEM3 (the European network for electron microscopy)**
2020	**Scientific Chair of the Project Panel on Condensed Matter and Physical Chemistry (W&T3 FP)** for the **Flanders Research Foundation (FWO)** (Belgium)
2019	**Member of the Committee to search for an Editor-in-chief of *Nano Letters* (ACS)**
2018-2023	**Editorial Board Member of *Nanomaterials***
2017-2022	**Member of the Evaluation Panel** for the **German Academic Exchange Service (DAAD)**
2015-2020	**Expert Panel Member** for the **Flanders Research Foundation (FWO)** (Belgium)
2017-2019	**Expert Panel Member** for the **Foundation for Polish Science (FNP)** (Poland)
2017	**Evaluator for the Novo Nordisk Prize 2018 (Novo Nordisk Foundation)** (Denmark)
2016	**Expert Panel Member** for the Fulbright International Scholarships (Fund. LaCaixa)
2013-Present	**Access Committee Member** at **LMA-INA (Zaragoza)** to Assess the Project Proposals
2010-Present	**Project Referee** for different International Agencies: **United States Department of Energy** (**DOE**) (USA), **European Research Council** (**ERC**) for **AdG**, **CoG** & **StG Calls** (EU), **EISMEA** (EU) **H2020 FETOpen**, **EU REA H2020-INFRAIA**, **The Royal Society** (UK), **Deutscher Akademischer Austauschdienst** (**DAAD**), **MIT MISTI GSF** (USA), **Agence Nationale de la Recherche** (**ANR**) (France), **Swiss National Science Foundation** (**SNSF**) (Switzerland), **ETH** (Zurich, Switzerland), **Israel Science Foundation** (**ISF**), **Netherlands Organisation for Scientific Research** (**NWO**), **Research Council of Norway (RCN), Austrian Science Fund** (**FWF**), **Natural Sciences and Engineering Research Council of Canada (NSERC), Research Grants Council (RGC)** (Hong Kong), **Czech Science Foundation** (**GACR**), **The United Arab Emirates University** (**UAEU**), **Agencia Nacional de Promoción Científica y Tecnológica** (Argentina), **Flanders Research Foundation** (**FWO**) (Belgium), **Swedish Research Council (Vetenskapsrådet)**, **Portuguese Foundation for Science and Technology** (**FCT**), **Central Finance and Contracting Agency (CFCA)** (Latvia), A**gencia Nacional de Evaluación y Prospectiva (ANEP)** (Spain), **Consejo Superior de Investigaciones Científicas (CSIC)** (Spain), **AQU Catalunya**
2012-2016	**Member of the User Selection Panel** (USP) as **Expert Advisor** to Assess the Project Proposals for the FP7 European I3 **ESTEEM2** Project.
2014-2015	**Editorial Board Member** of **'Journal of Nanomaterials'**
2014	**Member of the The Lev Margulis Prize Committee**, Israel Microscopy Society (ISM)
2008-Present	**Editorial Advisory Board Member** of 'The Open Analytical Chemistry Journal'

AWARDS AND HONOURS

2019-2023	**World's Top 2% Scientist** at **Stanford Univ. ranking** (**among top 1%** in **2019**, **2020**, **2021** **&** **2022**)
2023	**Nanoscale Horizons 2022 Outstanding Review Award**
2023	**Research.com Materials Science in Spain Leader Award**
2021	**FWO Commemorative Medal** (Flanders Research Foundation)
2020	**Severo Ochoa Tech Valorization Project Award** for the "Photo-Capture CO2 Tech patent" Funded with 15,000 € to further develop the technology.
2018	**BIST IGNITE AWARD** for the project: **In-situ atomic resolution transmission electron microscopy of heterogeneous water oxidation catalysts**
2015	**2014 EMS Outstanding Paper Award in the category "Materials Sciences"** (awarded by the European Microscopy Society (EMS)) to the paper: "Polarity-Driven Polytypic Branching in Cu-Based Quaternary Chalcogenide Nanostructures" published in **ACS Nano**, being the **corresponding author.**
2014	**EU40 Materials Prize** (awarded by the European Materials Research Society (E-MRS) in recognition to an outstanding contribution to materials research by a scientist under 40; received it for the work on **electron microscopy** in the study of the growth mechanisms in non-planar nanostructures and related quantum structures and its correlation to their physical properties, e.g.: optical and electronic).
2014	Listed in the **Top 40 under 40 Power List** by ***The Analytical Scientist***, as one of the best 40 Analytical Scientists under 40 years Worldwide.
2013	**RMR2013 *Innovation* Award** (awarded by Ràdio Molins de Rei, Barcelona)
2011	**Accreditation by AQU as Full Professor (Advanced Research Accreditation)**
2009	**Awarded as ICREA Research Professor at the age of 34.**
2009	**National Accreditation Certificate as Profesor Titular (Associate Professor)**
2007	**1st Pérez Castro Award for the Best 2007 Paper**
2005	**Accreditation by AQU as Associate Professor (Research Accreditation)**
2001	**PhD Extraordinary Award and European Doctor Mention** by Universitat de Barcelona

AWARDS OF SUPERVISED PHD STUDENTS

2024 **Marc Botifoll** selected to participate in the **73rd Lindau Nobel Laureate Meeting.** Only the 650 most qualified young scientists worldwide have been selected.
2023 **Ting Zhang** receives the **SME Award to the Best 2021-2022 PhD in Materials Science** ("ex aequo"), by the Spanish Microscopy Society (SME)
2023 **Xu Han** receives the **SME Award to the Best 2021-2022 PhD in Materials Science** ("ex aequo"), by the Spanish Microscopy Society (SME)
2023 **Marc Botifoll** awarded to participate in the **IFSM Young Scientists Assembly** as part of the 20th International Microscopy Congress (IMC20), Busan (Korea)
2023 **Ivan Pinto-Huguet** receives the Best Poster Award at the Microscopy at the Frontiers of Science 2023 (MFS2023), Braga (Portugal)
2023 **Ting Zhang** receives the **2020-2021 PhD Extraordinary Award in Materials Science** by Universitat Autònoma de Barcelona (UAB).
2022 **Sara Martí-Sánchez** receives the **2019-2020 PhD Extraordinary Award in Materials Science** by Universitat Autònoma de Barcelona (UAB).
2022 **Ting Zhang** receives the **2021 Best Thesis Award** from the **ICN2 Women Talent Programme.**
2021 **Zhifu Liang** receives the prestigious **Chinese Government Award for Outstanding Self Finance Students Abroad** for his PhD at ICN2**.**
2020 **PengYi Tang** receives the **2018 PhD Extraordinary Award in Materials Science** by Universitat Autònoma de Barcelona (UAB).
2019 **Xu Han awarded** with one of the prestigious **DAAD 2019 Scholarships** from the German Academic Exchange Service (DAAD) to perform an internship at the ER-C in Jülich from April 2020 to September 2020.
2019 **Sara Martí-Sánchez** receives the *Nanotechnology* Best Poster Award at the Nanowire Week Pisa 2019 (NWW2019), Pisa (Italy)
2019 **PengYi Tang** receives the SME Award to the Best 2017-2018 PhD in Materials Science, by the Spanish Microscopy Society (SME)
2019 **Dr. PengYi Tang** receives the **Humboldt Research Fellowship** for Postdoctoral Researchers**.**
2019 **Dr. PengYi Tang** receives the prestigious **Chinese Government Award for Outstanding Self Finance Students Abroad** for his PhD at ICN2**.**
2018 **María de la Mata** receives the **2015 PhD Extraordinary Award in Materials Science** by Universitat Autònoma de Barcelona (UAB).
2018 **Sara Martí-Sánchez** awarded to participate in the **IFSM Young Scientists Assembly** as part of the 19th International Microscopy Congress (IMC19), Sydney (Australia)
2018 **PengYi Tang** receives the *Energy & Environmental Science* Poster Prize at the International Conference on Renewable Energy (ICREN 2018), Barcelona
2017 **María de la Mata** receives the SME Award to the Best 2015-2016 PhD in Materials Science, by the Spanish Microscopy Society (SME).
2017 **PengYi Tang awarded** with one of the prestigious **DAAD 2017 Scholarships** from the German Academic Exchange Service (DAAD) to perform an internship at the ER-C in Jülich.
2015 **Reza Zamani** receives the **2013 PhD Extraordinary Award in Nanoscience** by Universitat de Barcelona (UB).
2015 **Reza Zamani** receives the **2014 EMS Outstanding Paper Award** in the category "Materials Sciences".
2015 **María de la Mata** selected to participate in the **65th Lindau Nobel Laureate Meeting.** Only the 650 most qualified young scientists worldwide have been selected.
2014 **Aziz Genç awarded** with one of the prestigious **DAAD 2014 Scholarships** from the German Academic Exchange Service (DAAD) to perform an internship at the ER-C in Jülich.
2014 **María de la Mata, IFSM Young Scientist Award at the International Microscopy Congress 2014 (IMC2014),** Prague (CZ)
2014 **Aziz Genç, IFSM Young Scientist Award at the International Microscopy Congress 2014 (IMC2014),** Prague (CZ)
2012 **Reza Zamani, IFSM Young Scientist Award at the European Microscopy Congress 2012 (EMC2012),** Manchester (UK)
2012 **María de la Mata, Awarded with Early Stage Career EMS Researcher Scholarship** for presenting the results of a trans-European research collaboration at EMC2012, Manchester (UK)
2011 **Roger Guzmán, Best Poster Award** at the Microscopy at the Frontiers of Science 2011, Aveiro (Portugal)
2009 **Sònia Conesa-Boj, Best Poster Award** at the Joint Meeting of the SME and SPMicros Societies, Segovia (Spain)

OUTREACH ACTIVITIES

2024 **Round Table at EADA Foundation:** 'AI as an Ally in Research Projects: Best Practices and Lessons Learned'
2023 Seminar Dia de la Ciència a les Escoles, Organized by FCRI, held at IES El Calamot, Gavà, Barcelona
2022 Interview at RAC1 Radio for the **"Noon News" (Informatiu del migdia)** and at for the Radio Program **"Versió RAC1"** about new energy sources: Nuclear Fusion.
2022 **Speaker at the Quantum Careers Symposium** organized by The Master in Quantum Science & Technology
2022 **Speaker at the BIST MEETUP 2022** on the BIST Microscopy Initiatives BIST Research Committee Roundtable
2021 **Radio Podcast:** RAC1 Oxigen Podcast – Chapter 12: Energies Renovables
2020 Collaboration with RAC1 in the **Radio program** "El RAC1 de pensar" with the topic "Residu Zero"
2019 Interview on the commemoration of the Nobel Prize in Chemistry 2017 - published in Revista de la Societat Catalana de Química, núm. 17 (2018), p. 120-125 (Press release)
2018 Seminar Setmana de la Ciència, Organized by AGAUR and CRP Vallès Occidental II, held at Institut Can Planas, Baberà del Vallès
2018 Seminar at Festival 10alamenos9 at Auditori COSMOCAIXA, Barcelona

2018 Seminar at ESCOLAB 2018, at ICN2 for High school students Inst. Martorell
2017 Seminar Setmana de la Ciència, Organized by AGAUR and CRP Vallès Occidental II, held at Institut Cavall Bernat, Terrassa
2017 Seminar at Festival 10alamenos9 at Auditori COSMOCAIXA, Barcelona

MEMBERSHIPS

2018-Present Member of the **Catalan Chemical Society (SCQ)**
2016-Present Member of the **American Chemical Society (ACS)**
2004-Present Member of the **Materials Research Society (MRS)**
2001-Present Member of the **European Microscopy Society (EMS)**
2001-Present Member of the **Spanish Microscopy Societies (SME)**
2003-2009 Member of the Educational Innovation Group e-Lindo (Electronics and educational innovation) at Universitat de Barcelona **(UB)**

TEACHING EXPERIENCE

2017-Present **Coordinator** of the **Advanced Techniques in Multidisciplinary Science Winter School** within the **BIST-UPF Master** of **Multidisciplinary Research in Experimental Sciences**. BIST Winter School on Microscopy, Nanoscopy & Imaging Sciences.
2014-2016 **Co-Organizer** of the **Nanotechnology Innovation** postgraduate course, coordinated between Univ. Texas at Austin (UTA), USA and Univ. Autònoma Barcelona (UAB), ESP.
2005-Present Director of 16 Master Theses, 12 PhD Theses (8 more in progress), 15 Post-Doc, 3 technicians and several undergrads and internships.
2006-2009 Teach Microscopy Techniques and Advanced Electron Microscopy Techniques in the Masters of Nanoscience and Nanotechnology and Master in Physical Engineering at UB.
2003-2009 Member of the Educational Innovation Group e-Lindo (Electronics and educational innovation) at Universitat de Barcelona.
1998-2009 Applied electronics, physical electronics and semiconductor physics at UB.

DIPLOMA AND DOCTORAL STUDENTS

SUPERVISED DOCTORAL THESES

2024-2028 Jinhai Liu
2024-2028 Athique Ahmed
2024-2028 Naji Vahedi
2023-2027 Xinxin Hu
2023-2027 David Llorens Rauret
2023-2027 Helena Rabelo Freitas
2022-2026 Francesco Salutari
2022-2026 Jing Yu
2022-2026 Ivan Pinto
2019-2024 Marc Botifoll, currently **post-doc at ICN2**
2018-2022 Xu Han, currently **post-doc at Aarhus University**, Denmark
2018-2022 Zhifu Liang, currently **Assoc. Prof., Nanjing University of Inf. Sci. and Tech.**, China
2017-2021 Ting Zhang, currently **Marie Curie post-doc at Aarhus University**, Denmark
2015-2020 Sara Martí-Sánchez, currently **post-doc at ICN2-Microsoft Quantum**
2015-2018 PengYi Tang, currently **Assoc. Prof., ShangHai Inst. Microsyst. Info. Tech., CAS**, Shanghai, China
2011-2015 María de la Mata, currently **Assistant Professor** at Universidad de Cadiz, Spain.
2012-2015 Aziz Genç, currently **Associate Professor** at Izmir Institute of Technology, Turkey
2010-2013 Roger Guzmán, currently **Tenured CSIC Researcher**.
2009-2013 Reza Zamani, currently **Applications Engineer** at Thermo Fisher EMEA, Germany.
2008-2011 Sònia Conesa-Boj, currently **Tenure Associate Prof.** at Delft University, The Netherlands.
2007-2009 Sònia Estradé, currently **Tenure Associate Prof.** at Universitat de Barcelona, Spain.

SUPERVISED MASTER STUDENTS

2022-2023 David Llorens, MMRES, BIST-Universitat Pompeu Fabra (UPF).
2021-2022 Richard Kienhoefer, Master in Quantum Technologies, Universitat de Barcelona (UB).
2021-2022 Ivan Pinto, MMRES, BIST-Universitat Pompeu Fabra (UPF).
2020-2021 Carla Borja, MMRES, BIST-Universitat Pompeu Fabra (UPF).
2020-2021 Pol Torres, MMRES, BIST-Universitat Pompeu Fabra (UPF).
2019-2020 Ramón Lortzing, Master in Materials Science, Universitat Autònoma de Barcelona (UAB).
2019-2020 Christian Koch, MMRES, BIST-Universitat Pompeu Fabra (UPF).
2018-2019 Marc Botifoll, MMRES, BIST-Universitat Pompeu Fabra (UPF).
2017-2018 Timm Swoboda, Master in Materials Science, Universitat Autònoma de Barcelona (UAB).
2016-2017 Déspina Nasiou, Master in Nanoscience, Universitat de Barcelona (UB).
2010-2011 María de la Mata, Master in Materials Science, Universitat Autònoma de Barcelona (UAB).
2010-2011 Francisco J. Belarre, Master in Materials Science, Universitat Autònoma de Barcelona (UAB).
2009-2010 Roger Guzmán, Master in Materials Science, Universitat Autònoma de Barcelona (UAB).

2007-2008 Jose M. Rebled, Universitat de Barcelona (UB).
2007-2008 Sònia Conesa-Boj, Universitat de Barcelona (UB).
2006-2007 Sònia Estradé, Universitat de Barcelona (UB).

SUPERVISED POST-DOCS and RESEARCH STAFF

2022-Present Dr. Alba Garzón Manjón (In-CAEM + RyC) – Senior Researcher at ICN2 since 2024
2024-Present Dr. Yongchao Zhang (In-CAEM + EDISON)
2024-Present Dr. Hui Chen (In-CAEM + EDISON)
2024-Present Dr. Marc Botifoll (IMPRESS)
2020-2024 Dr. Sara Martí-Sánchez (Microsoft Quantum + ICN2 Permanent)
2022-2024 Dr. Shunrui Luo (Central South University (China) internship + ReMade@ARI EU HORIZON-INFRA)
2022-2023 Dr. Xu Han (PN Funded)
2019-2023 Dr. Ying Liu (PROBIST EU COFUND MSC)
2022-2022 Dr. Zhifu Liang (PN Funded)
2018-2022 Dr. Maria Chiara Spadaro (PROBIST EU COFUND MSC + Juan de la Cierva)
2020-2022 Dr. Ting Zhang (PN Funded)
2017-2020 Dr. Jérémy David (P-Sphere EU COFUND MSC)
2018-2019 Dr. PengYi Tang (Internal ICN2 Project Scholarship)
2015-2016 Dr. María de la Mata (MINECO Project Scholarship)
2015-2016 Dr. Johannes Schläfer (MINECO Project Scholarship)
2011-2012 Dr. Jaume Gázquez (JAE Doc - CSIC)
2008-2009 Dr. Carlos Magaña (UNAM Postdoctoral Scholarship)

PARTICIPATION IN THESES COMMITTEES

Feb 2024 Marcos García Farpón, Prof. Gonzalo Prieto, ITQ-CSIC, València, Spain (member of jury)
Mar 2023 Sander Schellingerhout, Prof. Erik Bakkers, TU Eindhoven, The Netherlands (member of jury)
Nov 2022 Siqi Zhao, Prof. Kim Daasbjerg, Prof. Troels Skrydstrup, Aarhus University, Denmark (member of jury)
Sep 2020 Cansunur Demirci, Prof. Liberato Manna, Prof. M. Colombo (IIT), Dr. Dipak Shinde (IIT), Prof. Simona Delsante (UniGe) (member of jury)
Sep 2020 Irene Rosina, Prof. Liberato Manna & Prof. Luca De Trizio (IIT, UNIGE) (member of jury)
Mar 2020 Laura Campagnolo, Dr. A. Athanassiou & Dr. D. Fragouli (IIT) / Prof. M. Ferretti (UNIGE, DCCI) (member of jury)
Mar 2020 Silvia Gentiluomo, Dr. F. Bonaccorso & Prof. V Pellegrini (IIT) / Prof. O. Cavalleri (UNIGE, DCCI) (member of jury)
Mar 2020 Palvasha Ijaz, Prof. Liberato Manna & Prof. Roman Krahne (IIT) / Prof. Fabio Canepa (UNIGE, DCCI) (member of jury)
Mar 2020 Sahitya K. Avugadda, Dr. Teresa Pellegrino (IIT) / Prof. Orietta Monticelli (UNIGE, DCCI) (member of jury)
Mar 2020 Sergio Fiorito, Dr. Teresa Pellegrino (IIT) / Prof. Fabio Canepa (UNIGE, DCCI) (m. jury)
Apr 2019 Nicolas Bologna, Prof. Anna Fontcuberta i Morral / Dr. Marta Rossell, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland (participation as rapporteur/ member of jury)
Sep 2018 Akhil Ajay, Dr. Eva Monroy, CEA Grenoble – INAC, France (member of jury)
Jul 2017 Steffi Woo, Prof. Gianluigi A. Botton, McMaster Univ., Canada (rapporteur)
Oct 2016 David So, Prof. Gerasimos Konstantatos, Insitute of Photonics (ICFO) (rapporteur)
Feb 2016 Marta Manzanares, Prof. J.R. Morante, Universitat de Barcelona (UB) (participation as secretary of the jury)
Sep 2015 Simone Assali, Prof. Erik Bakkers, Technische Universiteit Eindhoven (TU/e), Netherlands (member of jury)
Dec 2014 Eleonora Russo, Prof. Anna Fontcuberta i Morral, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland (participation as rapporteur/ member of jury)
Nov 2014 Laura Vivero, Dr. Judith Sendra, Universitat de Barcelona (participation as rapporteur/ member of jury)
Jan 2014 Martin Ek, Prof. L. Reine Wallenberg / Prof. Kimberly Dick, Lund University, Sweden (participation as opponent)
Mar 2013 Maria Ibáñez, Prof. Andreu Cabot / Prof. J.R. Morante, Universitat de Barcelona (participation as secretary of the jury)
Jul 2012 Sara Abdollahzadeh-Ghom, Prof. Joan R. Morante, Universitat de Barcelona (participation as president of the jury)
Sep 2011 Juan de Dios López Castro, Dr. Juan José Delgado, Universidad de Cádiz (Spain)
Apr 2011 Edgar Emir González, Prof. Víctor F. Puntes, Universitat Autònoma de Barcelona (participation as secretary of the jury)
Sep 2007 Juan Carlos Hernández Garrido, Prof. José J. Calvino / Dr. José A. Pérez-Omil, Universidad de Cádiz (Spain) (participation as rapporteur)

SCIENTIFIC TRACK RECORD

512 publications in ISI journals, including: **1 Nature**, **2 Science**, **3 Nature Mater.**, **1 Joule**, **5 Ener. & Env. Sci.**, **1 Nature Catal.**, **1 The Innovation**, **1 Nature Nanotechnol.**, **1 Nature Rev. Chem.**, **7 Adv. Mater.**, **8 Adv. Energy Mater.**, **1 Mat. Today**, **8 Appl. Catal. B: Environ.**, **2 Ener. Storage Mater.**, **3 ACS Ener. Lett.**, **17 Adv. Funct. Mater.**, **6 Nano Energy**, **6 Nature Commun.**, **1 Adv. Science**, **20 ACS Nano**, **3 ACS Catal.**, **1 Science Adv.**, **1 EES Catal.**, **31 Nano Lett.**, **10 JACS**, **1 Chinese J. Catal.**, **1 Mat. Today Adv.**, **5 Angew. Chem. Int. Ed.**, **8 Small**, **9 Chem. Eng. J.**, **1 Small Structures**, **24 Chem. Mater.**, **2 Phys. Rev. Lett.**, **3 Nanoscale Horizons**, **20 J. Mater. Chem. A**, **1 Mater. Adv.**, **1 Commun. Mater.**, **2 Ener. Adv.**, **1 Materials Today Chemistry**, **1 Appl. Materials Today**, **22 ACS Appl. Mater. Interfaces**, **2 Solar RRL**, **8 ChemSusChem**, **13 Nanoscale**, **2 Nano Research**, **4 Chem. Commun.**, **27 Sens. & Act. B**, **2 Phys. Rev. Mater.**, **2 ACS Photonics**, **2 J. Mat. Chem. C**, **4 J. Mat. Chem.**, **1 Nanophotonics**, **2 Scientific Reports**, **3 Bioconj. Chem.**, **1 Carbon**, **9 Cryst. Growth & Des.**, **6 J. Phys. Chem. C**, **6 CrystEngComm**, **2 RSC Adv.**, **3 Adv. Mater. Interfaces**, **7 Langmuir**, **23 Appl. Phys. Lett.**, **1 Acta Mater.**, **18 Phys. Rev. B**, **15 Nanotechnology,…**

h-index: **103 GoS, 90 WoS** Citations >**34,534 GoS (27,057 WoS)**

512 Publications (**298** (58%) **D1**; **455** (89%) **Q1**)

27 Journal Covers

1 Book, **1** Book as Editor, **2** Book Chapters (as main author).

1 Patent

158 Invited Presentations: 51 Plenary/Keynote and 57 Invited Lectures at International Congresses and **50 Invited or Plenary Seminars** at Universities and Research Institutions Worldwide.

38 Organized International Conferences (**29 Congress Organizer/Chair**, **9 Symposium Organizer**), **17 Member of Scientific Committee at International Conferences.**

Supervision: 16 Master Theses, 17 PhD Theses (6 in Progress), 14 Post-Docs, 3 technicians

Referee for >50 International Journals, highlighting: ***Nature, Science, Nature Materials, Joule, Nature Catalysis, Chem, Adv. Mater., Adv. Energy Mater., Appl. Catal. B, ACS Nano, Nano Lett., Nature Commun., Angew. Chem., JACS, Adv. Funct. Mater., Nano Energy, ACS Catalysis, Small, Chem. Mat., ChemComm, Carbon, Nanoscale, Adv. Optical Mater., Sci. Rep. NPG, APL, Ultramicrosc., etc.***

RESEARCH ACHIEVEMENTS

In the doctoral studies:

• Structural analysis, simulation and modelling of 3D atomic nanostructures by means of High Resolution Transmission Electron Microscopy (HRTEM) to verify the structural changes induced by the low dimensionality, correlating them to the physical and chemical properties when acting as gas sensors. • First to demonstrate in-situ bandgap changes on the surface of semiconductor gas sensing nanoparticles exposed to different gases by STM, in a home-made in-situ environmental chamber. • Directed the work of two internship students during my thesis studies.

As a postdoctoral fellow and assistant Professor (2001-2009):

• First 3D electron tomography of nanowire-like structures and first HAADF tomography reconstruction of core-shell nanowires. • First HRTEM observation of catalyst-free growth of GaAs nanowires and discovery of the pinhole growth mechanism. • Development of a sample preparation method to obtain cross-section samples of complex core-shell nanowires with atomic resolution for the first time. • First demonstration of epitaxy of functional heterostructures on the facets of nanowires. • Electrical response measurements of single nanowires exposed to gases (single nanowire gas sensors). • Demonstration that silicon nanowires can be obtained in both zinc-blende (as in bulk silicon) and Wurtzite structures which could be useful for optical applications. • First to correlate the local density of states measured by HREELS on single defective atomic columns with changes in the Photoluminescence spectra in highly Mg-doped GaN nanowires. Directed 3 Master students, 2 PhD students and 1 post-doc.

Present as ICREA Research Professor (September 2009-present):

Highlights of the last 5 years:

A) Secure Funding and create the State-of-the-art Joint Electron Microscopy Center at ALBA (JEMCA)

During the last 5 years I have been able to secure the funds to finance the equipment and create the **Joint Electron Microscopy Center at ALBA synchrotron (JEMCA)** by leading different large infrastructure projects as Coordinator and PI (see funding and grants below). The state-of-the-art JEMCA center is now operational, and I have been appointed as its **Scientific Coordinator**. In 2021 I was one of the **Founding Members** of the European Distributed Research Infrastructure for Advanced Electron Microscopy (**e-DREAM**), allowing the ICN2, as a representative of JEMCA, to be part of this international excellence network. JEMCA is equipped with a Cryo-TEM, a monochromated and double aberration corrected STEM (another to be installed in 2024), 1 automated FIB for sample prep, equipment for in-situ/operando gas, liquid, bias and cooling/heating experiments, as well as computing infrastructure for data storage and data analysis. JEMCA's infrastructure has been mainly financed by the **METCAM-FIB**, **QTEP** and **In-CAEM** projects that I am coordinating (see funding below).

B) Structure-properties relationships in nanomaterials for physical applications

By means of AC (scanning) transmission electron microscopy the group has created accurate 3D atomic models of several nanosystems, getting full knowledge of the crystal structure, morphology and composition at the atomic scale allowing to understand their growth mechanisms, e.g. the polarity-driven growth in free-standing nanostructures like

nanowires (NWs) (**Adv. Mater. 2020**). We have developed methodologies to perform a direct correlation between the growth mechanisms (e.g. studying complex strain relaxation mechanisms in NW heterostructures) and their physical properties (**ACS Nano 2023**), such the local electronic band structure modulations at the interfaces (**Nat. Commun. 2022a**) or their transport, and photonics (**Nano Lett. 2024a,b**). In 2018 we characterized and model at the atomic scale the growth mechanism related to the formation of the first NW-based planar quantum networks (**Nano Lett. 2018a**). Since then, we have been leading this research field, studying these complex heterostructures and their evolution to hybrid NW networks, and 2D heterostructures for quantum applications in close collaboration with the Microsoft Quantum labs at Copenhagen, Delft and Purdue (**Nano Lett. 2020**), IST Austria (**Nature Mater. 2021** and **Nature 2022**), TU Delft (Nat. Commun. 2023a) or Niels Bohr Institute (**Nat. Commun. 2023b**, **Nano Lett. 2024a**, **Nano Lett. 2024b**).

C) Energy nanomaterials structure/composition related to chemical performance

My group has grown, studied at atomic scale and/or improved the performance of different energy related nanomaterials devoted to hydrogen production (photoelectrochemical water splitting) (**Nat. Commun. 2022b**), CO2 reduction (**Energy Environ. Sci. 2021**, and **1 Patent licensed by COMSA**), light harvesting (**Joule 2021**, **Science Adv. 2022**), energy storage (**Adv. Ener. Mater. 2021a,b,c**, **Adv. Mater. 2022**, **ACS Nano 2024**, **ACS Energy Lett. 2024**) and thermoelectric applications (**ACS Ener. Lett. 2021**) among others, minimizing environmental risks and working mostly with earth abundant materials. We have studied in detail, by means of (S)TEM related methodologies, how in nanostructures based on nanoparticles, single atom catalysts or 2D materials, small changes at the atomic level, such as the presence of dopants, vacancies, voids, defects, changes in the coordination, oxidation or valence state, or small differences in the atomic structure could strongly influence the final behavior of these (photo)electrocatalytic materials (**Adv. Mater. 2019**, **Adv. Ener. Mater. 2019**, **Nat. Commun. 2020**, **Nature Catal. 2022**, **Adv. Mater. 2024a**, **Adv. Mater. 2024b**, **Science 2024**). We could establish an unequivocal correlation between the surface structural composition, surface states and charge transfer through semiconductor/electrolyte interfaces with the electrocatalytic performance for energy and environmental applications combining nanocharacterization methodologies based on (S)TEM, electrochemical measurements, Synchrotron experiments and DFT simulations (**Energy Environ. Sci. 2021**; **Adv. Ener. Mater. 2022**, **ACS Nano 2024**). We have applied in-situ (S)TEM combined with EELS and e-tomography to understand CO2 reduction and methanation mechanisms down to the sub-nanometer level (**Adv. Mater. 2023**).
Interesting enough has been the development of 1 patent, which was the basis to create the spin-off LightNET, together with LighNET we have been funded with 2 Public projects related to knowledge and technology transfer.

D) Research group (2020-2024)

During this latest period of 5 years, I have supervised **13 PhD Students** (9 under progress) and **8 Master Students**. In addition, **10 post-docs** (1 RyC, 1 JdC and 3 MSCA) have been under my supervision (4 under progress), 1 project manager, as well as **10 undergrads** (TFG students) and 5 international students during research internships. It is especially meaningful that my PhD students have collectively earned **14 awards** (national and international) related to their PhD work during this period (See Student Awards above).

E) Grants & Funds obtained (2019-2023)

During the present period I have secured, as Coordinator or PI, over **26,7 M€** funds for **ICN2** and **JEMCA**.

About **16,5 M€ in National Scientific Projects** (being the Catalan coordinator of the "Planes Complementarios in Advanced Materials" project **In-CAEM**, with EU Next Generation Funds, 15 M€, the largest Materials Science Project in Spain).

More than **2,3 M€ in International Projects**, including **EU HORIZON projects** (being the Coordinator of the EIC Pathfinder Open **SOLARUP** and the **HORIZON WIDERA HOLISTIC** and PI in **ReMade@ARI**, **IMPRESS**, **RIANA** and **PeCATHS**). Other international projects include our collaborations with Denmark institutions (**ARQUDs** and **DeQD** projects) and the **M-ERA.Net project NEXPECH2**.

More than **1 M€ in private funding** (mainly from our international collaboration with Microsoft for the development of hybrid semi-/superconductor devices for quantum computing)

More than **1,75 M€ in personnel grants**

More than **5 M€ in infrastructure projects** (**METCAM-FIB** and **QTEP**), apart from the infrastructure funds already included in **In-CAEM** (about 11,2 M€).

In addition to the new ICN2 Severo Ochoa Project, with 4 M€ funding and where Prof. Jordi Arbiol is one of the PIs (Garante).

RESEARCH FUNDING ID

The current project list (Competitive Funding) is summarized in the following table:

Proposal name and subject	Agency	Role	Duration	Funding

SYNCAMON - SYnthesis and NanoCharacterization of Advanced Metal Oxide Nanostructures	CSIC	PI, C	1/1/2011 to 31/12/2012	8,000 €
NEAMAN - Nanoscopias Electrónicas Avanzadas aplicadas a MAteriales Nanoestructurados	CSIC	PI, C	1-7-2009 to 31-12-2010	50,000 €
COPEON - Correlation of the Electronic and Optical Properties in Functional Nanowires through Advanced Electron Nanoscopy	Ministry of Science & Innov., Spain	PI, C	1-1-2011 to 30-06-2014	72,600 €
IMAGINE - Materials at sub-Ångstrom resolution	Ministry of Science & Innov., Spain	R	17-12-2009 to 16-12-2014	3,500,000 €
Advanced Nano(S)TEM	NanoAraCat	PI, C	2010-2012	20,000 € (2010) 5,000 € (2011) 5,000 € (2012)
InCoSiN - Integration of compound semiconductors and silicon in nanowires	ERA.Net RUS: Ministry of Economy and Competitivity, Spain + EU FP7	PI	1-9-2012 to 1-9-2014	210,000 € (JA: 30,000 €)
EUROTAPES - European development of Superconducting Tapes	EU - FP7-NMP-2011-LARGE-5	R	1-9-2012 to 30-3-2017	13,499,939 €
DIPMeN - Direct and In-Situ Characterization of Surface Plasmons on Novel Complex Metal Nanostructures	Massachusetts Institute of Technology (MIT, USA)	PI	15-12-2012 to 31-8-2014	20,000 $
2014 SGR 1638 - Materials per a l'electrònica i l'energia (M2E)	Generalitat de Catalunya (AGAUR)	WPL	01-08-2014 to 31-12-2016	80,000 €
e-ATOM – Single ATOM detection through Advanced Electron Nanoscopies	Ministry of Economy, Spain (*Europa Excelencia* Call) Ref.: MAT2014-51480-ERC	PI, C	01-10-2014 to 31-03-2016	85,000 €
e-TNT – e-Nanoscopy and core-shell multilayers for Tandem devices and systems based on Nanostructures for solar energy Transformation in sun FUELS	Ministry of Economy, Spain (*RETOS* Call) Ref.: MAT2014-59961-C2-2-R	PI	01-01-2015 to 31-12-2017	84,700 €
2015 CAIXA SO SM JA - Direct correlation between optical and electronic properties at the nanoscale with the structure and composition at the atomic scale in complex nanostructures	Fundació “LaCaixa” – Sara Martí-Sánchez	Supervisor	17-09-2015 to 16-09-2019	113,500 €
InWOC – In-situ atomic resolution transmission electron microscopy of heterogeneous water oxidation catalysts	The Barcelona Institute of Science and Technology (BIST), Ignite Call	PI	01-04-2017 to 31-12-2017	20,000 €
The Application of Transmission Electron Microcopy in Synthesis of Functionalized Metal-Organic Frameworks Possessing Electrocatalytic Performances	China Scholarship Council (CSC) – Ting Zhang	Supervisor	26-10-2017 to 25-10-2021	48,000 €
Advanced electron nano/ microscopy characterizations of structure and properties of nano and quantum systems	Marie Skłodowska-Curie COFUND grant agreement No 665919 (P-SPHERE) – Dr. Jérémy David	Supervisor	18-04-2017 to 31-07-2020	157,000 €
InWOC2 – In-situ advanced characterization of heterogeneous water	The Barcelona Institute of Science and Technology (BIST),	PI, C	01-01-2018 to 31-12-2018	40,000 €

oxidation catalyst: Towards photocatalytic water splitting	Ignite Call (2nd stage) BIST IGNITE AWARD			
ANAPHASE – Advanced electron NAnoscopy for the improvement and development of new PHotoelectrocAtalytic routes towards high value products using Solar Energy	Ministry of Economy, Spain (*RETOS* Call) Ref.: ENE2017-85087-C3-3-R	PI	01-01-2018 to 31-12-2020	133,100 €
2017 SGR 327 - Microscòpia Electrònica Avançada (MicElA)	Generalitat de Catalunya (AGAUR)	WPL	01-01-2017 to 31-12-2020	18,000 €
ICN2 "Severo Ochoa Centres of Excellence" Programme	MINECO (Ref.: SEV-2017-0706)	WPL	01-07-2018 to 30-06-2022	4,000,000 € (JA: 432,500 €)
Microscopía electrónica de transmisión de resolución atómica de nanomateriales para aplicaciones en energía limpia	MINECO FPI SO BES-2017-081464 – Zhifu Liang	Super visor	01-09-2018 to 31-08-2022	92,750 €
Studying Mechanism of Chiral Metal-Organic Frameworks Catalysts Using Advanced Transmission Electron Microscopy (TEM) for Their Further Synthesis and Applications	China Scholarship Council (CSC) – Xu Han	Super visor	19-10-2018 to 18-10-2022	48,000 €
Atomic-resolution Transmission electron microscopy of Nanomaterials for Clean Energy applications (AT-ONCE)	Marie Skłodowska-Curie COFUND grant agreement No 754510 (PROBIST) – Dr. M. Chiara Spadaro	Super visor	01-10-2018 to 31-12-2021	98,913 €
Direct observation of oxides interfacial fields	Marie Skłodowska-Curie COFUND grant agreement No 754510 (PROBIST) – Dr. Ying Liu	Super visor	17-07-2019 to 16-07-2022	98,913 €
Microscopio Electrónico de Transmisión con Correctores de Aberraciones (METCAM-FIB)	Generalitat de Catalunya – EU ERDF Ref.: IU16-014206 (TEM)	PI, C	30-09-2019 to 31-12-2022	4,098,000 €
(Foto-)Electrocatálisis: De la Escala Atómica a Dispositivos Avanzados	MINECO REDES DE INVESTIGACIÓN RED2018-102459-T	PI	01-01-2020 to 31-12-2021	18,000 €
'Introduction to research for graduate students' fellowship	Spanish National Research Council (CSIC) Ref.: JAEINT19_EX_0244	Super visor	01-09-2019 to 31-05-2020	6,000 €
Characterization of nanostructures for quantum computing applications	Generalitat de Catalunya (AGAUR) – Marc Botifoll	Super visor	01-07-2020 to 30-06-2023	62,590 €
2020 InPhINIT LaCaixa Retaining PhD Scholarship	"LaCaixa" Foundation – Christian Koch	Super visor	15-09-2020 to 14-09-2023	122,592 €
ExEM – Spatially Resolved Excitonic Response in Quantum Semiconductor Systems based on Monochromated Electron Microscopy	Severo Ochoa 2.0: Seed Funding for Emerging Topics (ICN2) Ref.: SO_SC1B_08 PI: S. Martí-Sánchez	Super visor	01-05-2021 to 30-04-2022	10,000 €
QTEP - Quantum Fabrication Direct Electron Detector (EELS) + FIB Cryo Stage (WP13: Plataforma de microscopía para muestras cuánticas)	MCIN/ AEI/ – CSIC – EU ERDF – Next Generation EU Project: 20219PT051 (Ref.: QTP2021-02-010)	PI	01-01-2022 to 31-12-2022	8,906,992 € (JA: 850,000 €)
LOCAL – Linking Original electron microscopy and heterogeneous catalysis to localize the active site	Juan de la Cierva Incorporación 2019 Ref.: IJC2019-041702-I PI: M.C. Spadaro	Super visor	01-10-2021 to 30-09-2024	87,000 €
NANOGEN – Advanced electron nanoscopies applied	Retos - MCIN (ESP) Ref.: PID2020-	PI	01-09-2021 to 31-08-2024	205,700 €

to electrocatalysts investigation and improvement for the generation of sustainable fuel and high added value chemical products.	116093RB-C43 PI: Jordi Arbiol			
ReMade-at-ARI – Recyclable Materials Development at Analytical Research Infrastructures	EU HORIZON-INFRA-2021-SERV-01 HORIZON Ref.: 101058414	PI	01-10-2022 to 30-09-2026	14,012,808 € (JA: 275,570 €)
In-CAEM - In-situ Correlative Facility for Advanced Energy Materials	Plan Complementario on Advanced Materials (MCIN, Generalitat Catalunya) (PRTR-C17.I1) - NextGenerationEU	C, PI	22-04-2022 to 30-09-2025	15,065,000 €
Towards high-performance all-solid-state lithium-sulfur batteries	China Scholarship Council (CSC) – Jing Yu	Supervisor	15-09-2022 to 14-09-2026	62,400 €
SOLARUP - Advanced Strategies for Development of Sustainable Semiconductors for Scalable Solar Cell Applications	HORIZON-EIC-2021-PATHFINDEROPEN-01 Ref.: 101046297	C, PI	01-10-2022 to 30-09-2026	2,998,379 € (JA: 770,375 €)
MicEIA - 2021SGR00457 - Microscòpia Electrònica Avançada	Generalitat de Catalunya (AGAUR)	C, PI	01-01-2022 to 30-06-2025	60,000 €
IMPRESS – Interoperable electron Microscopy Platform for advanced RESearch and Services	EU HORIZON-INFRA-2022-TECH-01-01 Ref.: 101094299	PI	01-02-2023 to 31-01-2027	10,000,000 € (JA: 210,000 €)
'Introduction to research for graduate students' fellowship	JAE INTRO - CSIC David Llorens, Ref: JAEINT22_EX_0521	Supervisor	01-03-2023 to 31-08-2023	6,000 €
ICN2 "Severo Ochoa Centres of Excellence" Programme	MCIN/ AEI/ Ref.: CEX2021-001214-S	PI (garante)	01-01-2023 to 31-12-2026	4,000,000 € (JA: Not yet assigned)
HOLISTIC - HOP on SOLARUP Towards Lifetime Stability Assessment of Sustainable Photovoltaic Technologies	EU HORIZON-WIDERA-2022-ACCESS-07 Ref.: 101119330	C, PI	01-09-2023 to 30-09-2026	479,250 € (JA: 47,250 €)
Machine learning algorithms applied on electron microscopy	Generalitat de Catalunya (AGAUR) FI 2023 FI-1 00268 – Ivan Pinto Huguet	Supervisor	01-08-2023 to 31-07-2027	67,702 €
(Foto-)Electrocatálisis: De la Escala Atómica a Dispositivos Avanzados	MINECO REDES DE INVESTIGACIÓN RED2022-134508-T	PI	01-01-2023 to 31-12-2024	15,000 €
SANA-CO2 - Single Atom Catalysts and Cu Based Bimetallic Nanoparticles for CO2 electroreduction reaction: Design and Atomic Scale Exploration	MCIN / AEI RyC 2021Call Ref.:RYC2021-033479-I Alba Garzón Manjón	Supervisor	01-01-2023 to 02-12-2028	236,350 €
Nanocharacterization of materials through advanced in-situ / operando techniques	MCINN FPI SO CEX2021-001214-S-20-7 – David Llorens	Supervisor	01-08-2023 to 31-07-2027	102,210 €
The Influence of Doping Compositions on Hybrid Perovskite Ferroelectric Solid Solutions	China Scholarship Council (CSC) – Xinxin Xu	Supervisor	29-09-2023 to 28-09-2027	64,800 €
RIANA – Research Infrastructure Access in NAnoscience & nanotechnology	EU HORIZON-INFRA-2023-SERV-01 Ref.: 101130652	PI	01-03-2024 to 29-02-2028	14,496,952€ (JA: 162,050 €)
EDISON - Electrochemical	Generalitat de	PI	29-01-2024 to 29-02-2026	359,663.40€

DevIce for Sustainable CO2 Utilization	Catalunya (AGAUR) – Ajuts Canvi Climàtic Ref.: 2023 CLIMA 00105			(JA: 81,000 €)
DeQD - Deterministic Quantum Dots for Quantum Photonics	Danmarks Innovationsfond - Grand Solutions. Ref.: 3200-00032B	PI	01-06-2024 to 31-05-2027	1,504,744 DKK (201,737 €)
Study of semiconductor and hybrid heterostructures for quantum and electronic applications by transmission electron microscopy (TEM).	Generalitat de Catalunya (AGAUR) FI 2024 FI-1 00686 – Athique Ahmed	Super visor	01-06-2024 to 31-05-2027	74,453 €
ARQUDS - Atomic Resolution Analysis of Quantum Devices through STEM	Novo Nordisk Foundation Quantum Computing Programme (NQCP)	PI	01-09-2024 to 28-02-2026	133,250 €
NEXPECH2 - Next generation photoelectrochemical cell for hydrogen generation	M-ERA.Net COFUND 2023 MCIN /AEI Ref.: PCI2024-153492	R	01-10-2024 to 30-09-2027	120,000 €
PeCATHS – Photo-Electrocatalytic Routes for Long-Term Sustainable Hydrogen Storage	EU HORIZON-CL5-2024-D2-01 Ref.: 101130652	PI	01-01-2025 to 31-12-2028	2,708,126 € (JA: 400,750 €)
AMaDE – Advanced Electron Microscopy Characterization Methods for Materials and Devices for Energy	Retos - MCIN (ESP) Ref.: PID2023-149158OB-C43	PI	01-09-2024 to 31-08-2027	262,500 € + 1 PhD scholarship
Towards high-energy-density all-solid-state lithium-metal batteries	China Scholarship Council (CSC) – Jinhai Liu	Super visor	01-10-2024 to 30-09-2028	64,800 €
FPI - Advanced Electron Microscopy Characterization Methods for Materials and Devices for Energy	MCINN FPI PID2023 – Ref.: PREP2023-002177	Super visor	01-01-2025 to 31-12-28	125,200 €
'Introduction to research for graduate students' fellowship	JAE INTRO - CSIC Josep Cruañes, Ref: JAEINT24_EX_0469	Super visor	01-09-2024 to 31-05-2025	6,000 €

Role: PI (Principal Investigator), C (Coordinator), WPL (Work Package Leader), R (Researcher)

PRIVATE FUNDING ID (INDUSTRY)

The current project list (Competitive Funding) is summarized in the following table:

Project Title	Funding Entity	Role	Duration	Funding
Materials characterization of Hybrid semi-super Majorana nanowires – CHyMajor	MICROSOFT (USA)	PI	01-10-2016 to 30-06-2018	175,000 $ (143,000 €)
Materials characterization of Hybrid semi-super Majorana nanowires (2) – CHyMajor2	MICROSOFT (USA)	PI	01-07-2018 to 30-06-2019	200,000 $ (171,000 €)
METCAM – FIB - Microsoft	MICROSOFT (USA)	PI	01-05-2020 to 31-12-2021	300,000 €
Materials characterization of Hybrid semi-super Majorana nanowires (3) – CHyMajor3	MICROSOFT (USA)	PI	01-07-2019 to 28-02-2021	250,000 $ (223,600 €)
Materials characterization of Hybrid semi-super Majorana nanowires (4) – CHyMajor4	MICROSOFT (USA)	PI	01-03-2021 to 28-02-2022	249,600 $ (210,278 €)
Materials characterization of Hybrid Quantum nanostructures (1) - MCHQuNan	MICROSOFT (USA)	PI	15-05-2022 to 14-05-2025	240,480 €
ICN2-COMSA-LightNET Developing building materials that sucks air pollutants	COMSA (Spain) PI: **Amador Pérez**	R	03-12-2020 to 02-04-2021	15,000 €
LightNET – Captura d'emissions de CO2 directament de l'atmosfera a gran escala i en industries per una Catalunya climàticament neutral al 2035.	AGAUR GenCAT - Convocatòria d'Indústria del Coneixement per a l'any 2022 Modalitat C. Innovadors Ref.: PO092794	C, PI	05-10-2023 to 04-04-2025	84.000 €
METHAFILTER: combining carbon capture store and use with anaerobic biogas digestors to produce pure biomethane at higher efficiency and lower cost	AGAUR GenCAT - Convocatòria d'Indústria del Coneixement per a l'any 2024 Modalitat B. Producte Ref.: 2024PROD00147	C, PI	02-12-2024 to 01-06-2026	150,000 € (90,000 €)

Role: PI (Principal Investigator), C (Coordinator), WPL (Work Package Leader), R (Researcher)

PATENTS

PT1- 'METHOD TO PHOTO-CAPTURE CO2 WITH PEROVSKITE OXIDE COMPOUNDS' Amador Pérez Tomás, Carles Rubio Lorente, Guillaume Sauthier, Jeremy David, Pablo Vales Castro, Jordi Arbiol Cobos, Jose Santiso López, Gustau Catalan Bernabé, Ref.: **EP 2019/47354; EP19383211.0; PCT/EP2020/088044; 2022/16534**
Patent Licensed to LightNET Carbon Capture S.L.

PLENARY, KEYNOTE AND INVITED LECTURES AT INTERNATIONAL CONFERENCES AND WORKSHOPS

2025 NanoBio2025 (Heraklion, Crete, Greece) (***PLENARY*** Lecture) 8-12 Sep
2025 QUANTUMatter 2025 (Grenoble, France) (**Invited**) 20-23 May
2025 5th International Workshop on In situ Transmission Electron Microscopy (Porto, Portugal) (**Invited**) 15 May
2025 AI4Quantum - Accelerating Quantum Computing with AI (Hillerød, Denmark) (***KEYNOTE*** Lecture) 25-28 Mar
2024 XIII Congreso Nacional de Microscopía 2024 (on-line Monterrey, México) (***PLENARY*** Lecture) 23-27 Sep
2024 Electron Microscopy of Nanostructures **(**ELMINA2024) (Belgrade, Serbia) (***PLENARY*** Lecture) 9-13 Sep
2024 E-MRS Spring Meeting 2024 (Strasbourg, France) Symp. V "Synthesis, physical properties and applications of advanced nanocrystalline materials" (**Invited**) May 2024
2024 FUNLAYERS Hands-on workshop on synchrotron techniques for research in Spintronics and Energy Storage (ALBA Synchrotron) (**Invited**) 14 Mar
2023 Future Materials 2023 (Valencia, Spain) (***KEYNOTE*** Lecture) 23-27 Oct
2023 Nanowire Week 2023 (NWW2023) (Atlanta, USA) (**Invited**) 9-13 Oct
2023 Microscopy at the Frontiers of Science Conference (MFS 2023) (Braga, Portugal) (**Invited**) 27-29 Sep
2023 NanoInnovation 2023 (Rome, Italy) (***KEYNOTE*** Lecture) 18-22 Sep
2023 20th International Microscopy Congress (IMC20) (Busan, Korea) (**Invited**) 11-15 Sep
2023 Trends in Nanotechnology Intern. Conference (TNT2023) (Lyon, France) (***KEYNOTE*** Lecture) 28Aug-1Sep
2023 Nanotech France 2023 (Paris, France) (***KEYNOTE*** Lecture) 30 Jun
2023 11th International Conference on Materials for Advanced Technologies (ICMAT 2023), Symposium Y: 2D Materials and Heterostructures (Singapore) 26-29 Jun (**Invited**)

2023 TF Workshop IIT (Genoa, Italy) (***KEYNOTE*** Lecture) 22 Jun
2023 NanoSeries2023 (ICMM Madrid, Spain) (***KEYNOTE*** Lecture) 20 Jun
2023 JPhD2023 (Bellaterra, Barcelona) (***PLENARY*** Lecture) 7-9 Jun
2023 ACS Measurement Science Au Summit Series (Barcelona) (***KEYNOTE*** Lecture) 14 Mar
2022 Smart Materials and Surfaces 2022 (Athens, Greece) (***KEYNOTE*** Lecture) 26-28 Oct
2022 Trends in Nanotechnology International Conference (TNT2022 nanoBalkan) (Tirana, Albania) (***KEYNOTE*** Lecture) 3-7 Oct
2022 Future Materials 2022 (Rome, Italy) (***KEYNOTE*** Lecture) 3-5 Oct
2022 33rd European Crystallographic Meeting (ECM33) (Versailles, France) 26 Aug (**Invited**)
2022 Electron Microscopy of Nanostructures **(**ELMINA2022) (Belgrade, Serbia) (***PLENARY*** Lecture) 23-24 Aug
2022 The 2022 International Conference on Energy Technology and Materials Engineering (ETME 2022) (Zhangjiajie, China) (***KEYNOTE*** Lecture) 22-24 Apr
2021 BIKE Workshop on Catalysis and design of advanced reactors, UPC, Barcelona (**Invited**)
2021 2021 BIST Conference (Barcelona) 3 November (**Invited**)
2021 NanoGe2021 (Barcelona) Symp. #NCFun21: Fundamental Processes in Nanocrystals 17-22 October (**Invited**)
2021 Trends in Nanotechnology International Conference (TNT2021) (Tirana, Albania) (***KEYNOTE*** Lecture) 4-8 Oct
2021 2021 International Conference on Civil Engineering, Energy and Electric Powery (CEEEP 2021) (Jilin, China) (***KEYNOTE*** Lecture) 25 Sep
2021 1st International Microscopy & Spectroscopy Congress (MSC 2021) (Turkey, on-line) (***PLENARY*** Lecture) 24 Sep
2021 E-MRS Fall Meeting 2021 (Warsaw, Poland) Symp. C "Advanced catalytic materials for (photo)electrochemical energy conversion II" 23 September (**Invited**)
2021 Virtual IEEE Conference on Nanotechnology (IEEE NANO 2021) on-line 28-31 July (**Invited**)
2021 Future Materials 2021 (Barcelona) (***KEYNOTE*** Lecture) 5-7 July
2021 The 5th International Workshop on Advances in Energy Science and Environment Engineering (AESEE 2021) (Xiamen, China) (***KEYNOTE*** Lecture) 9-11 April
2020 IEEE Conference on Nanotechnology (IEEE NANO 2020) (Montreal, Canada) on-line (**Invited**)
2020 The 2020 4th International Workshop on Advances in Energy Science and Environment Engineering (AESEE 2020) - online conference (Hangzhou, China) (***KEYNOTE*** Lecture) on-line
2020 International Conference on Smart Engineering Materials (ICSEM 2020) (Singapore) (***KEYNOTE*** Lecture) on-line
2020 Future Materials 2020 (Lisbon, Portugal) (***KEYNOTE*** Lecture)
2020 12th Asia-Pacific Microscopy Conference (APMC-2020) (Hyderabad, India) (**Invited**)
2019 Smart Materials and Surfaces (SMS 2019) (Lisbon, Portugal) (***PLENARY*** Lecture)
2019 2019 EMN Epitaxy Meeting (Amsterdam, NL) (***KEYNOTE*** Lecture)
2019 International Conference Nano-M&D 2019 (Paestum, Italy) (**Invited**)
2019 nanoSpain2019 (Barcelona) (***KEYNOTE*** Lecture)
2019 Nanomaterials Science 2019 (Brussels, Belgium) (***KEYNOTE*** Lecture)
2019 MRS Spring Meeting 2019 (Phoenix, USA) Symp. X "Emerging Materials for Quantum Information" (**Invited**)
2019 WIS Inaugural Meeting (Rehovot, Israel) (***KEYNOTE*** Lecture)
2019 International Conference on Smart Engineering Materials (ICSEM 2019) (Auckland, New Zealand) (***KEYNOTE*** Lecture)
2019 BIST Symposium on Microscopy, Nanoscopy and Imaging Sciences 2019 (Castelldefels, Barcelona) (***KEYNOTE*** Lecture)
2018 2nd International Conference on Nanomaterials and Biomaterials (ICNB 2018) (Barcelona) (***KEYNOTE*** Lecture)
2018 31st European Crystallographic Meeting (ECM31) (Oviedo, Spain) (***KEYNOTE*** Lecture)
2018 International Conference on Materials Science and Engineering (ICMSE 2018) (Moscow, Russia) (***KEYNOTE*** Lecture)
2018 Nanotech France 2018 (Paris, France) (***KEYNOTE*** Lecture)
2018 Collaborative Conference on Materials Research (CCMR) 2018 (Incheon, South Korea) (**Invited**)
2018 2018 EMN Meeting on Epitaxy (Vienna, Austria) (***KEYNOTE*** Lecture)
2018 International Conference on Nanoscience and Nanoengineering (NSNE 2018) (Las Vegas, USA) (***KEYNOTE*** Lecture)
2018 2018 International Conference on Smart Engineering Materials (ICSEM 2018) (Bucharest, Romania) (***KEYNOTE*** Lecture)
2017 Nanoscience 2017 (Frankfurt, Germany) (***KEYNOTE*** Lecture)
2017 ANNIC 2017 (Rome, Italy) (***PLENARY*** Lecture)
2017 Nanoscience & Nanotechnology 2017 (N&N 2017) (Frascati, Italy) (***PLENARY*** Lecture)
2017 EMSI 2017 (Chennai, India) (***PLENARY*** Lecture)
2017 Microscience Microscopy Congress (mmc2017) (Manchester, UK) (**Invited**)
2017 21st International Conference on Solid State Ionics (SSI-21) (Padua, Italy) (**Invited**)
2017 BIST Founding Conference (Barcelona) (**Invited**)
2017 14th Int. Conf. on Nanomaterials and Nanotechnology (Madrid, Spain) (***KEYNOTE*** Lecture)
2016 ANNIC 2016 (Barcelona) (***PLENARY*** Lecture)
2016 YUCOMAT 2016 (Herceg Novi, Montenegro) (***PLENARY*** Lecture)
2016 Int. Summer Course on Nanofabrication & TEM (ELECMI 2016) (Jaca, Spain) (**Invited**)
2016 ISM Golden Jubilee 2016 (ISM 2016) (Haifa, Israel) (**Invited**)
2016 EMN 2D-Materials Meeting, (Donostia, Spain) (**Invited**)
2016 EMN Meeting on Nanowires 2016, (Amsterdam, Netherlands) (**Invited**)
2016 SPIE PHOTONICS WEST 2016 Symp. BIOS (San Francisco, USA) (**Invited**)

2015 MRS Fall Meeting 2015 (Boston, USA) Symp. P "Symposium P: Synthesis and Applications of Nanowires and Hybrid 1D-0D/2D/3D Semiconductor Nanostructures" (**Invited**)
2015 PHONSI Nanophotonics by Nanocrystals Workshop, ETH, Zurich (Switzerland) (**Invited**)
2015 TNT2015 (Toulouse, France) (***KEYNOTE*** Lecture)
2015 E-MRS Spring Meeting 2015 (Lille, France) Symp. A "Materials, mechanisms and devices in Nano Energy" (**Invited**)
2015 E-MRS Spring Meeting 2015 (Lille, France) Symp. DD "Current Trends in Optical and X-Ray Metrology of Advanced Materials for Nanoscale Devices IV" (**Invited**)
2015 3rd Croatian Microscopy Congress (HMK2015) (Zadar, Croatia) (**Invited**)
2015 DPG Spring Meeting 2015 (Berlin 2015), Deutsche Physikalische Gesellschaft (Berlin, Germany) (**Invited**)
2015 SPIE PHOTONICS WEST and BIOS 2015 (San Francisco, USA) (**Invited**)
2014 International Conference on Microscopy and Microanalysis (INCOMAM'14) (Porto, Portugal) (***PLENARY*** Lecture)
2014 International Microscopy Congress 2014 (IMC 2014) (Prague, Czech Republic) (**Invited**)
2014 E-MRS Spring Meeting 2014 (Lille, France) (***PLENARY*** Lecture)
2014 European Network for Electron Microscopy ESTEEM2 Users Meeting (Cadiz, Spain) (**Invited**)
2014 Materials Challenges in Alternative & Renewable Energy (MCARE 2014) (Clearwater, FL, USA) (**Invited**)
2013 MRS Fall Meeting 2013 (Boston, USA) (**Invited**)
2013 Materials Science & Technology 2013 Conference & Exhibition (MS&T'13) (Montreal, Canada) (**Invited**)
2013 XII Inter-Amer. Microscopy Cong. (CIASEM2013) (Cartagena, Colombia) (**Invited**)
2013 EUROMAT2013 (Sevilla, Spain) (***KEYNOTE*** Lecture)
2013 HETECH 2013 (Glasgow, Scotland, UK) (**Invited**)
2013 The 47th Annual Scientific Meeting of ISM (ISM 2013) (Safed, Israel) (**Invited**)
2013 GdR Nanofils Semiconducteurs (Saint-Martin-de-Londres, France) (**Invited**)
2013 37th Int. Conf. and Expo on Adv. Ceram. & Composites (ICCAC'13) (Daytona Beach, USA) (**Invited**)
2013 5th IEEE International Nanoelectronics Conference (IEEE INEC 2013) (Singapore) (**Invited**)
2012 12th TEM-UCA European Summer Workshop (Puerto Real, Spain) (**Invited**)
2011 Nanowires11 (NW11) (Plomari, Lesvos, Greece) (**Invited**)
2010 473. WE-Heraeus-Seminar on III-V Nanowires (Bad Honnef, Germany) (**Invited**)
2010 TEM: Adv. Appl. for Materials Science and Nanotech. (JTEM2010) (Bellaterra, Spain) (**Invited**)
2010 Nanomaterials for Energy and Biotechnology Meeting II (Haifa, Israel) (**Invited**)
2010 Workshop of Advanced Transmission Electron Microscopy (WATEM 2010) (Zaragoza, Spain) (**Invited**)
2009 Nanomaterials for Energy and Biotechnology Meeting (San Sebastián, Spain) (**Invited**)
2009 MRS Fall Meeting 2009 (Boston, USA) (**Invited**)
2009 Joint Congress of the Spanish and Portuguese Microscopy Societies (Segovia, Spain) (**Invited**)
2002 II Reunión Nacional de Física del Estado Sólido (GEFES 2002) (Calella, Spain) (**Invited**)

PLENARY/INVITED SEMINARS

2024 **Massachusetts Institute of Technology** (**MIT**) (Cambridge, USA) (host: Y. Roman)
2024 **Novonordisk Foundation Quantum Computing Programme at Niels Bohr Institute (NBI), University of Copenhagen** (Copenhagen, Denmark) (host: P. Krogstrup) (23 May)
2024 **Università degli Studi di Catania** (Catania, Italy) (host: M.C. Sapadaro & S. Mirabella) (9 Apr)
2024 **Instituto de Ciencia de Materiales de Madrid (ICMM)** (Madrid, Spain) (host: J.A. Martin-Gago) (13 Feb)
2019 **Microsoft Q-Lab Delft** (Delft, Netherlands) (host: P. Caroff & L. Kouwenhoven)
2019 **trivago Academies** (Düsseldorf, Germany)
2018 **Massachusetts Institute of Technology** (**MIT**) (Cambridge, USA) (host: Y. Shao-Horn)
2018 **ETEM Opening Ceremony**, Lund University (Sweden) (host: R. Wallenberg)
2018 **Ernst Ruska-Centre** (**ER-C**) (Jülich, Germany) (host: M. Heggen)
2017 **Societat Catalana de Química (SCQ)** (Barcelona) (host: N. Ventosa)
2017 **Universitat Rovira i Virgili (URV)** (Tarragona) (host: R. Guimerà)
2017 **Universität Bremen** (Bremen, Germany) (host: M. Eickhoff)
2016 **Instituto de Ciencia de Materiales de Madrid (ICMM)** (Madrid, Spain) (host: S. Gallego)
2016 **Ecole Polytechnique** (Palaiseau, France) (host: P. Roca i Cabarrocas)
2016 **Niels Bohr Institute of Copenhagen** (Denmark) (host: U. Pietsch)
2016 **Ben Gurion University of the Negev** (Beer-Sheva, Israel) (host: M. Bar-Sadan)
2016 **ICIQ – Institut Català d'Investigació Química** (Tarragona, Spain) (host: J.R. Galán-Mascarós)
2016 **Dilluns de la Ciència al CSIC (Residència d'Investigadors, CSIC, Barcelona)** (Spain)
2015 **Technische Universiteit Eindhoven (TU/e)** (Eindhoven, Netherlands) (host: E.P.A.M. Bakkers)
2015 **University of Texas at Austin (UTA)** (Austin, TX, USA) (host: B. Korgel)
2015 **Fundació OMS** (Manresa, Spain) (host: G. Vilaseca)
2014 **University of Manchester** (Manchester, UK) (host: S. Haigh)
2014 **Institute of Physics ASCR, v. v. i. (FZU)** (Prague, Czech Republic) (host: P. Sittner)
2014 **CELLS-ALBA Synchrotron Facility** (Cerdanyola del Vallès, Spain) (host: M.A.G. Aranda)
2014 **Opening Plenary Talk for the Excellence High School Awards 2014** (Molins de Rei, Spain)
2014 **Georg-August-Universität Göttingen** (Göttingen, Germany) (host: A. Rizzi)
2014 **Institut de Ciències Fotòniques (ICFO)** (Castelldefels, Spain) (host: G. Badenes)
2014 **59th ICREA Colloquium** – Auditorium of the **FCRI** (Barcelona, Spain)
2013 **CiMS-CELLEX** – (Bellaterra, Spain)
2013 **Technion** – Israel Technology Institute (Haifa, Israel) (host: I. Talmon)
2013 **Weizmann Institute of Science** (Rehovot, Israel) (host: E. Joselevich)

2013 **Institut Català de Nanotecnologia** (**ICN2**) (Bellaterra, Spain) (host: C. Sotomayor)
2013 **Ernst Ruska-Centre** (**ER-C**) (Jülich, Germany) (host: R. Dunin-Borkowski)
2013 **Nanyang Technological University** (**NTU**) (Singapore) (host: Q. Xiong)
2012 Institut de Ciència de Materials de Barcelona (**ICMAB-CSIC**) (Bellaterra, Spain)
2012 **Universitat Politècnica de Catalunya** (**UPC**) (Barcelona, Spain)
2012 Escola Manyanet Molins – Sant Miquel Arcàngel, Molins de Rei (Spain)
2012 **Massachusetts Institute of Technology** (**MIT**) (Cambridge, USA) (host: S. Gradečak)
2010 Institut de Ciència de Materials de Barcelona (**ICMAB-CSIC**) (Bellaterra, Spain)
2010 **Insitut Català de Nanotecnologia** (**ICN**) (Bellaterra, Spain) (host: A. Merkoçi)
2010 Institut de Ciència de Materials de Barcelona (**ICMAB-CSIC**) (Bellaterra, Spain)
2009 Universitat de Barcelona (**UB**) (Barcelona, Spain)
2009 **École Polytechnique Fédérale de Lausanne** (**EPFL**) (Switzerland) (host: A. Fontcuberta i Morral)
2009 **Institut des Materiaux** (**IMX**-**EPFL**) (Lausanne, Switzerland) (host: A. Fontcuberta i Morral)
2008 Universitat de Barcelona (**UB**) (Barcelona, Spain)
2008 Universitat de Barcelona (**UB**) (Barcelona, Spain)
2007 **University of Split** (Split, Croatia) (host: I. Puljak)
2007 **Universitat Autònoma de Barcelona** (**UAB**) (Bellaterra, Spain)
2006 **Walter Schottky Institute** (**WSI**) (Garching, Germany) (host: A. Fontcuberta i Morral)
2006 Associació Cultural Fòrum XXI (Molins de Rei, Spain)

CONGRESS MANAGEMENT

2025 4th Conference of Advanced Materials in Spain (AMatS 2025) **Conference Chair and Member of the Scientific Committee** (Bellaterra, Barcelona)
2025 IMPRESS School on Operando and Correlative Experiments, (ALBA Synchrotron, Barcelona) **co-Organizer**
2025 BIST Symposium on Microscopy 2025 (**BSyM 2025**), (Castelldefels, Barcelona) **Workshop co-Chair**
2024 Workshop on In Situ/Operando Characterization of Chemical and Electrochemical Energy Processes **Member of the Organizing Committee** (ALBA Synchrotron, Barcelona)
2024 3rd Conference of Advanced Materials in Spain (AMatS 2024) **Member of the Scientific Committee** (Valladolid, Spain)
2024 European-Materials Research Society Spring Meeting 2024 (**E-MRS Spring 2024**) (Strasbourg, France) (Symposium Q: Future Photovoltaics based on Earth Abundant Materials) **Symposium Organizer**
2024 PECAS 2024 School (Donostia, Spain) **Member of the Organizing Committee**
2024 BIST Symposium on Microscopy 2024 (**BSyM 2024**), (Castelldefels, Barcelona) **Workshop co-Chair**
2023 2nd Conference of Advanced Materials in Spain (AMatS 2023) **Member of the Scientific Committee**
2023 European-Materials Research Society Spring Meeting 2023 (**E-MRS Spring 2023**) (Strasbourg, France) (Symposium T: Frontiers of in-situ materials characterization - from new instrumentation and methods to imaging aided materials design) **Symposium Organizer**
2023 International Quantum Matter Conference & Expo (**QUANTUMatter 2023**) (Madrid, Spain) **International Scientific Committee (ISC)**
2023 BIST Symposium on Microscopy 2023 (**BSyM 2023**), (Castelldefels, Barcelona) **Workshop co-Chair**
2022 nanoGe Fall Meeting 2022 (**MAT-SUS**) (Barcelona) (Symposium #2DNanoMat: 2D Nanomaterials for Energy and Environmental Applications) **Symposium Organizer**
2022 International Conference on Science and Technology of Quantum Matter (**QUANTUMatter 2022**) (Barcelona) **Local Organising Committee**
2022 BIST Symposium on Microscopy 2022 (**BSyM 2022**), (Castelldefels, Barcelona) **Workshop co-Chair**
2021 1st edition of the QUANTUM2021 International Conference (**QUANTUM2021**) (Bilbao) **International Scientific Committee (ISC)**
2021 2021 BIST Conference: Quantum Technologies: Present and Future, (Barcelona) **Member of the Scientific Committee**
2021 Microscopy at the Frontiers of Science 2021 (**MFS 2021**) (on-line) **Congress co-Chair**
2021 BIST Symposium on Microscopy 2021 (**BSyM 2021**), (on-line) **Workshop co-Chair**
2021 Quantum Information in Spain 2021 Workshop (**ICE-6**) (on-line) **Member of the Scientific Committee**
2021 Applied Nanotechnology and Nanoscience International Conference 2021 (**ANNIC 2021**) (on-line) **Chairs Committee Member**
2020 2020 5th International Conference on Smart Engineering Materials (**ICSEM 2020**) (Singapore) (March 2020) **Congress co-Chair**
2020 12th Asia Pacific Microscopy Conference (APMC-12) (Hyderabad, India) (Feb 2020) **Member of the International Advisory Committee**
2020 BIST Winter Symposium on Microscopy, Nanoscopy & Imaging Science (**BSyM 2020**) (ICFO), Castelldefels, Barcelona) **Workshop co-Chair**
2019 Applied Nanotechnology and Nanoscience International Conference 2019 (**ANNIC 2019**) (Paris, France) **Chairs Committee Member, Chairman**
2019 Microscopy at the Frontiers of Science 2019 (**MFS 2019**) (Granada, Spain) **Member of the Scientific Committee**
2019 AnalytiX-2019 (Singapore, Singapore) 12-14 April **Member of the Scientific Advisory Committee (SAB)**
2019 BIST Winter Symposium on Microscopy, Nanoscopy & Imaging Science (ICFO, Castelldefels, Barcelona) **Workshop co-Chair**
2018 2nd International Conference on Nanomaterials and Biomaterials (ICNB 2018) (Barcelona) **Congress co-Chair**
2018 Materials Research Society Fall Meeting 2018 (**MRS Fall 2018**) (Boston, USA) (Symposium NM03: Nanowires and Related 1D Nanostructures - New Opportunities and Grand Challenges) **Symposium Organizer, Chairman**
2018 Applied Nanotechnology and Nanoscience International Conference 2018 (**ANNIC 2018**) (Berlin, Germany) **Chairs Committee Member, Chairman**
2018 31st European Crystallographic Meeting (**ECM31**) (Oviedo, Spain) **Symposium Organizer, Chairman**
2018 International Conference on Smart Engineering Materials (ICSEM 2018) (Bucharest, Romania) **Congress co-Chair, Chairman**
2018 BIST Winter Symposium on Microscopy, Nanoscopy & Imaging Science (ICFO, Castelldefels, Barcelona) **Workshop Chair**
2017 Nanoscience 2017 (Frankfurt, Germany) **Organizing Committee Member (OCM)**
2017 Applied Nanotechnology and Nanoscience International Conference 2017 (**ANNIC 2017**) (Rome, Italy) **Chairs Committee Member, Chairman**
2017 **EMSI 2017** (Chennai, India) (July 2017) **Member of the Advisory Committee, Chairman**
2017 Microscopy at the Frontiers of Science 2017 (**MFS17**) (Zaragoza, Spain) **Member of the Scientific Committee**
2017 Microscopy & Microanalysis 2017 (**M&M 2017**) (Saint Louis, Mo, USA) (July 2017) **Symposium Organizer, Chairman**

2017 VIII International Congress on Analytical Nanoscience and Nanotechnology (**NyNA 2017**) (Barcelona) (July 2017)
Congress Chair, Organizer, **Chairman**
2017 14th Int. Conf. on Nanomaterials and Nanotechnology (Madrid, Spain)
OCM for Nanomaterials Series Conferences **Organizing Committee**
2016 Applied Nanotechnology and Nanoscience International Conference 2016 (**ANNIC 2016**) (Barcelona, CAT, Spain)
Chairs Committee Member, **Chairman**
2016 International Conf. on Modern Materials & Technologies 2016 (**CIMTEC 2016**) (Perugia, ITA)
Member of the Scientific Committee (International Advisory Board) (Symposium G: Multifunctional Inorganic One-dimensional Nanostructures: Status and Potential)
2015 Materials Research Society Fall Meeting 2015 (**MRS Fall 2015**) (Boston, USA)
Chairman
2015 Nanowire Growth Workshop & Nanowires 2015 (**Nanowires Barcelona 2015**) (Barcelona, Spain)
Congress Chair, Organizer, Chairman
2015 European Materials Research Society Fall Meeting (**E-MRS Fall 2015**) (Warsaw, Poland)
Member of the Scientific Committee (Symposium M: Hierarchical assembly of nano-scale building blocks)
2015 Microscopy at the Frontiers of Science 2015 (**MFS15**) (Porto, Portugal)
Member of the Scientific Committee, Chairman
2015 Materials Research Society Spring Meeting 2015 (**MRS Spring 2015**) (San Francisco, USA)
Symposium Organizer, Chairman, Guest Editor Symposium Proceedings
2014 Materials Challenges in Alternative & Renewable Energy (**MCARE 2014**) (Clearwater, FL, USA)
Symposium Organizer, Chairman
2013 Materials Research Society Fall Meeting 2013 (**MRS Fall 2013**) (Boston, USA)
Chairman
2013 XII Inter-Amer. Microscopy Cong. (**CIASEM2013**) (Cartagena, Colombia)
Member of the Scientific Committee
2013 Microscopy at the Frontiers of Science 2013 (**MFS13**) (Tarragona, Spain)
Congress Chair, Organizer, Chairman and Member of the Scientific Committee
2013 European Materials Research Society Spring Meeting (**E-MRS Spring 2013**) (Strasbourg, France)
Member of the Scientific Committee (Symposium P: Functional Nanowires)
2013 5th IEEE International Nanoelectronics Conference (**IEEE INEC 2013**) (Singapore)
Chairman
2012 Materials Research Society Fall Meeting 2012 (**MRS Fall 2012**) (Boston, USA)
Symposium Organizer, Chairman, Guest Editor Symposium Proceedings
2011 Microscopy at the Frontiers of Science 2011 (**MFS11**) (Aveiro, Portugal)
Member of the Scientific Committee, Chairman
2011 473. WE-Heraeus-Seminar on III-V Nanowires (Bad Honnef, Germany)
Chairman
2010 Transmission Electron Microscopy: Advanced Applications for Materials Science (**JTEM2010**) (Bellaterra, Spain)
Congress Chair, Organizer, Chairman
2010 Nanomaterials for Energy and Biotechnology Meeting II (Haifa, Israel)
Chairman
2009 Nanomaterials for Energy and Biotechnology Meeting I (San Sebastián, Spain)
Chairman

RESEARCH INTERNSHIPS & SHORT RESEARCH STAYS

2015 Institut des Materiaux, École Polytechnique Fédérale de Lausanne (**EPFL**) (Lausanne, Switzerland)
2013 Massachusetts Institute of Technology (**MIT**) (Cambridge, USA)
2013 Ernst Ruska-Centre (**ER-C**) for Microscopy and Spectroscopy with Electrons (Jülich, Germany)
2012 Massachusetts Institute of Technology (**MIT**) (Cambridge, USA)
2012 Electron Microscopy for Materials Science (**EMAT**) (Antwerp, Belgium)
2009 Institut des Materiaux, École Polytechnique Fédérale de Lausanne (**EPFL**) (Lausanne, Switzerland)
2008 **SuperSTEM** Laboratory (Daresbury, UK)
2004 National Center of Electron Microscopy (**NCEM-LBNL**) (Berkeley, USA)
2002 Department of Mathematics and Physics, University of Split (Split, Croatia)
2002 European Synchrotron Radiation Facility (**ESRF**) (Grenoble, France)
2001 Department of Mathematics and Physics, University of Split (Split, Croatia)
2001 GATAN (Inc) (Pleasanton, USA)
2001 Department of Materials Science and Inorg. Chemistry, Uversidad de Cádiz (**UCA**), (Cádiz, Spain)
2000 Department of Materials Science and Inorg. Chemistry, Uversidad de Cádiz (**UCA**), (Cádiz, Spain)
2000 Group of 'Structure of Low-dimensional Systems', **CEMES-CNRS**, (Toulouse, France)
1999 Group of 'Structure of Low-dimensional Systems', **CEMES-CNRS**, (Toulouse, France)
1997 Group of 'Microstructures Silicium et Microsystemes Integres', **LAAS-CNRS** (Toulouse, France)

LIST OF KEY PUBLICATIONS

512 publications in ISI journals, including: **1 Nature, 2 Science, 3 Nature Mater., 1 Joule, 5 Ener. & Env. Sci., 1 Nature Catal., 1 The Innovation, 1 Nature Nanotechnol., 1 Nature Rev. Chem., 7 Adv. Mater., 8 Adv. Energy Mater., 1 Mat. Today, 8 Appl. Catal. B: Environ., 2 Ener. Storage Mater., 3 ACS Ener. Lett., 17 Adv. Funct. Mater., 6 Nano Energy, 6 Nature Commun., 1 Adv. Science, 20 ACS Nano, 3 ACS Catal., 1 Science Adv., 1 EES Catal., 31 Nano Lett., 10 JACS, 1 Chinese J. Catal., 1 Mat. Today Adv., 5 Angew. Chem. Int. Ed., 8 Small, 9 Chem. Eng. J., 1 Small Structures, 24 Chem. Mater., 2 Phys. Rev. Lett., 3 Nanoscale Horizons, 20 J. Mater. Chem. A, 1 Mater. Adv., 1 Commun. Mater., 1 Ener. Adv., 1 Materials Today Chemistry, 1 Appl. Materials Today, 22 ACS Appl. Mater. Interfaces, 2 Solar RRL, 8 ChemSusChem, 13 Nanoscale, 2 Nano Research, 4 Chem. Commun., 27 Sens. & Act. B, 2 Phys. Rev. Mater., 2 ACS Photonics, 2 J. Mat. Chem. C, 4 J. Mat. Chem., 1 Nanophotonics, 2 Scientific Reports, 3 Bioconj. Chem., 1 Carbon, 9 Cryst. Growth & Des., 6 J. Phys. Chem. C, 6 CrystEngComm, 2 RSC Adv., 3 Adv. Mater. Interfaces, 7 Langmuir, 23 Appl. Phys. Lett., 1 Acta Mater., 18 Phys. Rev. B, 15 Nanotechnology,…**

h-index: **103 GoS, 90 WoS** Citations >**34,534 GoS (27,057 WoS)**

SELECTED PUBLICATIONS (find the full list at: **www.gaen.cat/publications**)

AUTHORS: Peng-Yi Tang,* Jordi Arbiol*
Title: The rising of single atom catalysts in hematite photoanodes for photoelectrochemical water splitting.
Journal: **The Innovation**, **On-line view**, DOI: 10.1016/j.xinn.2025.100810
Year: 2025
Impact Factor (SCI): **38.3** (Q1; D1) **Times Cited (SCI):** **0**
* Corresponding Author

AUTHORS: Chen Huang, Jing Yu, Chao Yue Zhang, Zhibiao Cui, Ren He, Linlin Yang, Bingfei Nan, Canhuang Li, Xuede Qi, Xueqiang Qi, Junshan Li, Jin Yuan Zhou, Oleg Usoltsev, Laura Simonelli, Jordi Arbiol, Yao-Jie Lei, Qing Sun, Guoxiu Wang, Andreu Cabot
Title: Anionic Doping in Layered Transition Metal Chalcogenides for Robust Lithium-Sulfur Batteries.
Journal: **Angewandte Chemie - International Edition**, **Accepted Article**, DOI: 10.1002/anie.202420488
Year: 2025
Impact Factor (SCI): **16.1** (Q1; D1) **Times Cited (SCI):** **0**

AUTHORS: Xu Han, Ting Zhang,* Martí Biset-Peiró, Alberto Roldan, Marcel Ceccato, Nina Lock, Steen Uttrup Pedersen, Joan Ramon Morante, Jordi Arbiol,* Kim Daasbjerg*
Title: Mesopore-Augmented Electrochemical CO2 Reduction on Nitrogen-Doped Carbon.
Journal: **Small**, **Early view**, DOI: 10.1002/smll.2024068832303639
Year: 2025
Impact Factor (SCI): **13.0** (Q1; D1) **Times Cited (SCI):** **0**
* Corresponding Author

AUTHORS: Jing Yu, Ivan Pinto-Huguet, Chao Yue Zhang, Yingtang Zhou, Yaolin Xu, Alen Vizintin, Juan-Jesús Velasco-Vélez, Xueqiang Qi, Xiaobo Pan, Gozde Oney, Annabel Olgo, Katharina Märker, Leonardo M. Da Silva, Yufeng Luo, Yan Lu, Chen Huang, Eneli Härk, Joe Fleming, Pascale Chenevier, Andreu Cabot,* Yunfei Bai, Marc Botifoll, Ashley P. Black, Qi An, Tazdin Amietszajew, Jordi Arbiol*
Title: Mechanistic Insights and Technical Challenges in Sulfur-Based Batteries: A Comprehensive In Situ/Operando Monitoring Toolbox.
Journal: **ACS Energy Letters**, **9**, 6178-6214
Year: 2024
Impact Factor (SCI): **19.3** (Q1; D1) **Times Cited (SCI):** **0**
* Corresponding Author

AUTHORS: Qianhong Gong, Dawei Yang, Huiping Yang, Konglin Wu, Jie Zhang, Wei Bi, Jiefeng Diao, Canhuang Li, Jing Yu, Chao Yue Zhang, Mengyao Li, Graeme Henkelman, Jordi Arbiol, Qiaobao Zhang, Andreu Cabot
Title: Cobalt Ditelluride Meets Tellurium Vacancy: An Efficient Catalyst as a Multifunctional Polysulfide Mediator toward Robust Lithium–Sulfur Batteries.
Journal: **ACS Nano**, **18**, 28382–28393
Year: 2024
Impact Factor (SCI): **15.8** (Q1; D1) **Times Cited (SCI):** **1**

AUTHORS: Xingqi Chang, Jesús Chacón-Borrero, Jian Shang, Ke Xiao, Guillem Montaña-Mora, Karol V. Mejia-Centeno, Xuan Lu, Ao Yu, Jing Yu, Xiaolong Zhou, Sarayut Tunmee, Pinit Kidkhunthod, Changcai Cui, Junshan Li, Yongbing Tang, Paulina R. Martínez-Alanis, Jordi Arbiol, Andreu Cabot
Title: Improved Mn4+/Mn2+ Contribution in High-Voltage Zn–MnO2 Batteries Enabled by an Al3+-Ion Electrolyte.
Journal: **Advanced Energy Materials**, **14**, 2402584
Year: 2024
Impact Factor (SCI): **24.4** (Q1; D1) **Times Cited (SCI):** **0**

AUTHORS: Jing Yu, Chen Huang, Oleg Usoltsev, Ashley P. Black, Kapil Gupta, Maria Chiara Spadaro, Ivan Pinto-Huguet, Marc Botifoll, Canhuang Li, Javier Herrero-Martín, Jinyuan Zhou, Alexandre Ponrouch, Ruirui Zhao, Lluís Balcells, Chao Yue Zhang, Andreu Cabot,* Jordi Arbiol*

Title: Promoting Polysulfide Redox Reactions through Electronic Spin Manipulation.
Journal: ACS Nano, **18**, 19268-19282
Year: 2024
Impact Factor (SCI): 15.8 (Q1; D1) **Times Cited (SCI):** 5
* Corresponding Author

AUTHORS: Ranit Ram, Lu Xia, Hind Benzidi, Anku Guha, Viktoria Golovanova, Alba Garzón Manjón, David Llorens Rauret, Pol Sanz Berman, Marinos Dimitropoulos, Bernat Mundet, Ernest Pastor, Veronica Celorrio, Camilo A. Mesa, Aparna M. Das, Adrián Pinilla-Sánchez, Sixto Giménez, Jordi Arbiol, Núria López, F. Pelayo García de Arquer.
Title: Water-hydroxide trapping in cobalt tungstate for proton exchange membrane water electrolysis.
Journal: Science, **384**, 1373-1380
Year: 2024
Impact Factor (SCI): 44.7 (Q1; D1) **Times Cited (SCI):** 36

AUTHORS: Linlin Yang, Ren He, Marc Botifoll, Yongcai Zhang, Yang Ding, Chong Di, ChuanSheng He, Ying Xu, Lluís Balcells, Jordi Arbiol, Yingtang Zhou, Andreu Cabot
Title: Enhanced Oxygen Evolution and Zinc-Air Battery Performance via Electronic Spin Modulation in Heterostructured Catalysts.
Journal: Advanced Materials, **36**, 2400572
Year: 2024
Impact Factor (SCI): 27.4 (Q1; D1) **Times Cited (SCI):** 9

AUTHORS: Jing Li, Roger Miró, Angelika Wrzesińska-Lashkova, Jing Yu, Jordi Arbiol, Yana Vaynzof, Alexey Shavel, Vladimir Lesnyak
Title: Aqueous Room-Temperature Synthesis of Transition Metal Dichalcogenide Nanoparticles: A Sustainable Route to Efficient Hydrogen Evolution.
Journal: Advanced Functional Materials, **34**, 2404565
Year: 2024
Impact Factor (SCI): 18.5 (Q1; D1) **Times Cited (SCI):** 7

AUTHORS: Bingfei Nan, Cheng Chang, Zhihao Li, Nilotpal Kapuria, Xu Han, Mengyao Li, Hongchao Wang, Kevin M. Ryan, Jordi Arbiol, Andreu Cabot
Title: Nanocrystal-based thermoelectric SnTe-NaSbSe2 alloys with strengthened band convergence and reduced thermal conductivity.
Journal: Chemical Engineering Journal, **492**, 152367
Year: 2024
Impact Factor (SCI): 13.3 (Q1; D1) **Times Cited (SCI):** 0

AUTHORS: Canhuang Li, Dawei Yang, Jing Yu, Jian Wang, Chaoqi Zhang, Tianxiang Yang, Chen Huang, Bingfei Nan, Junshan Li, Jordi Arbiol, Yingtang Zhou, Qiaobao Zhang, Andreu Cabot
Title: Three Birds with One Stone: Multifunctional Separators Based on SnSe Nanosheets Enable High-Performance Li-, Na- and K-Sulfur Batteries.
Journal: Advanced Energy Materials, **14**, 2303551
Year: 2024
Impact Factor (SCI): 24.4 (Q1; D1) **Times Cited (SCI):** 3

AUTHORS: Dawei Yang, Jiaao Wang, Chenjie Lou, Mengyao Li, Chaoqi Zhang, Alberto Ramon, Canhuang Li, Mingxue Tang, Graeme Henkelman, Ming Xu, Junshan Li, Jordi Llorca, Jordi Arbiol, David Mitlin, Guangmin Zhou, Andreu Cabot
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AUTHORS: Sabbir A. Khan,[+*] Sara Martí-Sánchez,[+*] Dags Olsteins, Charalampos Lampadaris, Damon James Carrad, Yu Liu, Judith Quiñones, Maria Chiara Spadaro, Thomas Sand Jespersen, Peter Krogstrup,* Jordi Arbiol*
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[+] Equal Contribution; * Corresponding Author

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AUTHORS: Ren He, Linlin Yang, Yu Zhang, Xiang Wang, Seungho Lee, Ting Zhang, Lingxiao Li, Zhifu Liang, Jingwei Chen, Junshan Li, Ahmad Ostovari Moghaddam, Jordi Llorca, Maria Ibanez, Jordi Arbiol, Ying Xu, Andreu Cabot
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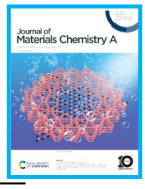

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[+] Equal Contribution; * Corresponding Author

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AUTHORS: Yongmin He, Liren Liu, Chao Zhu, Shasha Guo, Prafful Golani, Bonhyeong Koo, Pengyi Tang, Zhiqiang Zhao, Mangzhang Xu, Chao Zhu, Peng Yu, Xin Zhou, Caitian Gao, Xuewen Wang, Zude Shi, Lu Zheng, Jiefu Yang, Byungha Shin, Jordi Arbiol, Huigao Duan, Yonghua Du, Marc Heggen, Rafal E. Dunin-Borkowski, Wanlin Guo, Qi Jie Wang, Zhuhua Zhang, Zheng Liu
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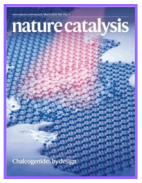

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[+] Equal Contribution; * Corresponding Authors

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Selected as Hot Topic: Carbon Dioxide

AUTHORS: Yu Liu, Mariano Calcabrini, Yuan Yu, Seungho Lee, Cheng Chang, Jérémy David, Tanmoy Ghosh, Maria Chiara Spadaro, Chenyang Xie, Oana Cojocaru-Mirédin, Jordi Arbiol, Maria Ibáñez
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AUTHORS: Daniel Jirovec, Andrea Hofmann, Andrea Ballabio, Philipp M. Mutter, Giulio Tavani, Marc Botifoll, Alessandro Crippa, Josip Kukucka, Oliver Sagi, Frederico Martins, Jaime Saez-Mollejo, Ivan Prieto, Maksim Borovkov, Jordi Arbiol, Daniel Chrastina, Giovanni Isella, Georgios Katsaros
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AUTHORS: Chaoqi Zhang, Ruifeng Du, Jordi Jacas Biendicho, Mingjie Yi, Ke Xiao, Dawei Yang, Ting Zhang, Xiang Wang, Jordi Arbiol, Jordi Llorca, Yingtang Zhou, Joan Ramon Morante, Andreu Cabot
Title: Tubular CoFeP@CN as a Mott–Schottky Catalyst with Multiple Adsorption Sites for Robust Lithium−Sulfur Batteries.
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AUTHORS: Haibing Xie, Zaiwei Wang, Zehua Chen, Carlos Pereyra, Mike Pols, Krzysztof Gałkowski, Miguel Anaya, Shuai Fu, Xiaoyu Jia, Pengyi Tang, Dominik Józef Kubicki, Anand Agarwalla, Hui-Seon Kim, Daniel Prochowicz, Xavier Borrisé,Mischa Bonn, Chunxiong Bao, Xiaoxiao Sun, Shaik Mohammed Zakeeruddin, Lyndon Emsley, Jordi Arbiol, Feng Gao, Fan Fu, Hai I. Wang, Klaas-Jan Tielrooij, Samuel D. Stranks, Shuxia Tao, Michael Grätzel, Anders Hagfeldt, Monica Lira-Cantu
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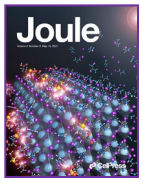
Journal: **Joule**, **5**, 1246-1266
Year: 2021
Impact Factor (SCI): **46.048** (Q1; D1) **Times Cited (SCI):** **123**
Includes the **Front Cover** of **Joule** 5(5) (2021) Issue



AUTHORS: Jian Li, Amine Slassi, Xu Han, David Cornil, Minh-Huong Ha-Thi, Thomas Pino, Damien P. Debecker, Christophe Colbeau-Justin, Jordi Arbiol, Jérôme Cornil, Mohamed Nawfal Ghazzal
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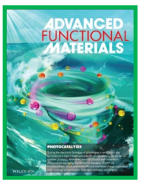

AUTHORS: Zhifu Liang,[+] Dawei Yang,[+] Pengyi Tang,[+] Chaoqi Zhang, Jordi Jacas Biendicho, Yi Zhang, Jordi Llorca, Xiang Wang, Junshan Li, Marc Heggen, Jeremy David, Rafal E. Dunin-Borkowski, Yingtang Zhou, Joan Ramon Morante, Andreu Cabot,* Jordi Arbiol*
Title: Atomically dispersed Fe in C2N based Catalyst as Sulfur Host for Efficient Lithium-Sulfur Batteries.
Journal: **Advanced Energy Materials**, **11**, 2003507
Year: 2021
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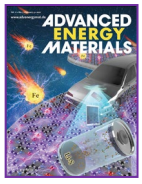
[+] Equal Contribution; * Corresponding Author
Includes the Inside **Back Cover** of **Advanced Energy Materials** 5 (2021) Issue



AUTHORS: Dawei Yang, Chaoqi Zhang, Jordi Jacas Biendicho, Xu Han, Zhifu Liang, Ruifeng Du, Mengyao Li, Junshan Li, Jordi Arbiol, Jordi Llorca, Yingtang Zhou, Joan Ramon Morante, Andreu Cabot
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AUTHORS: Junshan Li, Ruilin Wei, Xiang Wang, Yong Zuo, Xu Han, Jordi Arbiol, Jordi Llorca, Yaoyue Yang, Andreu Cabot, Chunhua Cui
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Year: 2020
Impact Factor (SCI): **15.336** (Q1; D1) **Times Cited (SCI):** **129**

AUTHORS: Yongmin He,[+] Pengyi Tang,[+] Zhili Hu, Qiyuan He, Chao Zhu, Luqing Wang, Qingsheng Zeng, Prafful Golani, Guanhui Gao, Wei Fu, Zhiqi Huang, Caitian Gao, Juan Xia, Xingli Wang, Xuewen Wang, Chao Zhu, Quentin M. Ramasse, Ao Zhang, Boxing An, Yongzhe Zhang, Sara Martí-Sánchez, Joan Ramon Morante, Liang Wang, Beng Kang Tay, Boris I. Yakobson, Achim Trampert, Hua Zhang, Minghong Wu, Qi Jie Wang, Jordi Arbiol,* Zheng Liu*
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[+] Equal Contribution; * Corresponding Author

AUTHORS: Yu Liu, Saulius Vaitiekėnas, Sara Martí-Sànchez, Christian Koch, Sean Hart, Zheng Cui, Thomas Kanne, Sabbir A. Khan, Rawa Tanta, Shivendra Upadhyay, Martin Espiñeira Cachaza, Charles M. Marcus, Jordi Arbiol, Katherine A. Moler, Peter Krogstrup
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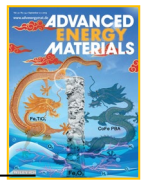
Selected as **Hot Topic** in ***Surfaces and Interfaces***



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AUTHORS: Pengyi Tang, Jordi Arbiol*
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Impact Factor (SCI): **9.927** (Q1; D1) **Times Cited (SCI):** **95**
* Corresponding Author
Highlighted as One of the Most Popular Papers in Nanoscale Horizons in 2019

AUTHORS: María de la Mata,* Reza R. Zamani, Sara Martí-Sànchez, Martin Eickhoff, Qihua Xiong, Anna Fontcuberta i Morral, Philippe Caroff, Jordi Arbiol*
Title: The Role of Polarity in Non-Planar Semiconductor Nanostructures.
Journal: **Nano Letters**, **19**, 3396-3408
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Impact Factor (SCI): **11.238** (Q1; D1) **Times Cited (SCI):** **48**
* Corresponding Authors

AUTHORS: Kai Wan, Jiangshui Luo, Chen Zhou, Ting Zhang, Jordi Arbiol, Xihong Lu, Bing-Wei Mao, Xuan Zhang, Jan Fransaer
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Journal: **Advanced Functional Materials**, **29**, 1900315
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AUTHORS: Reza R. Zamani, Jordi Arbiol
Title: Understanding semiconductor nanostructures via advanced electron microscopy and spectroscopy.

Journal: Nanotechnology, **30**, 262001
Year: 2019
Impact Factor (SCI): 3.551 (Q2) **Times Cited (SCI):** 21

AUTHORS: Xuan Zhang, Jiangshui Luo,* Kai Wan, Dieter Plessers, Bert Sels, Jianxun Song, Liugang Chen, Ting Zhang, Pengyi Tang, Joan Ramon Morante, Jordi Arbiol,* Jan Fransaer*
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Journal: Journal of Materials Chemistry A, **7**, 1616-1628
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AUTHORS: Xuan Zhang, Jiangshui Luo,* Heng-Fu Lin, Pengyi Tang,Joan Ramon Morante, Jordi Arbiol,* Kai Wan, Bing-Wei Mao, Li-Min Liu,* Jan Fransaer*
Title: Tailor-made metal-nitrogen-carbon bifunctional electrocatalysts for rechargeable Zn-air batteries via controllable MOF unit.
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Impact Factor (SCI): 16.280 (Q1; D1) **Times Cited (SCI):** 80
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AUTHORS: Pavel Aseev, Alexandra Fursina, Frenk Boekhout, Filip Krizek, Joachim E. Sestoft, Francesco Borsoi, Sebastian Heedt, Guanzhong Wang, Luca Binci, Sara Martí-Sánchez, Timm Swoboda, René Koops, Emanuele Uccelli, Jordi Arbiol, Peter Krogstrup, Leo P. Kouwenhoven, Philippe Caroff
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Journal: Nano Letters, **19**, 218-227
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Editors' Suggestion!

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Journal: Energy & Environmental Science, **10**, 2256-2266
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Journal: Chemistry of Materials, **29**, 3397-3402
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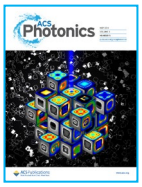

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Year: 2014
Impact Factor (SCI): 8.368 (Q1; D1) **Times Cited (SCI):** 223

AUTHORS: Reza R. Zamani, Maria Ibáñez, Martina Luysberg, Nuria Garcia-Castello, Lothar Houben, Joan Daniel Prades, Vincenzo Grillo, Rafal E. Dunin-Borkowski, Joan Ramon Morante, Andreu Cabot, Jordi Arbiol*
Title: Polarity-Driven Polytypic Branching in Cu-Based Quaternary Chalcogenide Nanostructures.
Journal: ACS Nano, **8**, 2290-2301
Year: 2014
Impact Factor (SCI): 12.881 (Q1; D1) **Times Cited (SCI):** 54
* Corresponding Author
2014 EMS Outstanding Paper Award in Materials Sciences (by the European Microscopy Society)

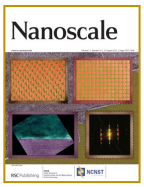
AUTHORS: Irina Giebelhaus, Elena Varechkina, Thomas Fischer, Marina Rumyantseva, Vladimir Ivanov, Alexander Gaskov, Joan Ramon Morante,* Jordi Arbiol,* Wieland Tyrra,* Sanjay Mathur*
Title: One-dimensional CuO–SnO_2 p–n heterojunctions for enhanced detection of H_2S.
Journal: Journal of Materials Chemistry A, **1**, 11261-11268
Year: 2013
Impact Factor (SCI): 6.626 (Q1; D1) **Times Cited (SCI):** 70
* Corresponding Authors

AUTHORS: Jordi Arbiol,* Maria de la Mata, Martin Eickhoff, Anna Fontcuberta i Morral*
Title: Bandgap engineering in a nanowire: self-assembled 0, 1 and 2D quantum structures.
Journal: Materials Today, **16**, 213-219 **Invited Review**
Year: 2013
Impact Factor (SCI): 10.850 (Q1; D1) **Times Cited (SCI):** 47
* Corresponding Authors
Featured in the following journals: *Carbon*, *Electronic Materials* and *Nanotechnology*

AUTHORS: Maria de la Mata, Xiang Zhou, Florian Furtmayr, Jörg Teubert, Silvija Gradecak, Martin Eickhoff, Anna Fontcuberta i Morral, Jordi Arbiol*
Title: A review of MBE grown 0D, 1D and 2D quantum structures in a nanowire.
Journal: Journal of Materials Chemistry C, **1**, 4300-4312 **Invited Review (Feature Paper)**
Year: 2013

Impact Factor (SCI): 6.626 (Q1) **Times Cited (SCI):** 96
* Corresponding Author
Highlighted in: ***Journal of Materials Chemistry Blog, selected as HOT Article for 2013 in JMCC***

AUTHORS: Yue Zhu, Yong Zhou, Mumhammad Iqbal Bakti Utama, Maria de la Mata, Qing Zhang, Bo Peng, Cesar Magen, Jordi Arbiol,* Qihua Xiong*
Title: Solution Phase van der Waals Epitaxy of ZnO Wire Arrays.
Journal: Nanoscale, **5**, 7242-7249
Year: 2013
Impact Factor (SCI): 6.739 (Q1; D1) **Times Cited (SCI):** 34
* Corresponding Authors
Journal Inside Front Cover



AUTHORS: Wenhua Li, Reza Zamani, Pilar Rivera_Gil, Beatriz Pelaz, Maria Ibáñez, Doris Cadavid, Alexey Shavel, Ramon A. Alvarez-Puebla, Wolfgang J. Parak, Jordi Arbiol, Andreu Cabot
Title: CuTe Nanocrystals: Shape and size control, plasmonic properties, and use as SERS probes and photothermal agents.
Journal: **Journal of the American Chemical Society**, **135**, 7098–7101
Year: 2013
Impact Factor (SCI): 11.444 (Q1; D1) **Times Cited (SCI):** 468

AUTHORS: Muhammad Iqbal Bakti Utama,+ Maria de la Mata,+ Qing Zhang, Cesar Magen, Jordi Arbiol,* Qihua Xiong*
Title: The Growth of Ultralong ZnTe Micro/Nanostructures: The Influence of Polarity and Twin Direction on The Morphogenesis of Nanobelts and Nanosheets.
Journal: Crystal Growth & Design, **13**, 2590-2596
Year: 2013
Impact Factor (SCI): 4.558 (Q1; D1) **Times Cited (SCI):** 22
+Equal Contribution; * Corresponding Authors

AUTHORS: Wenhua Li, Reza Zamani, Maria Ibáñez, Doris Cadavid, Alexey Shavel, Joan Ramon Morante, Jordi Arbiol, Andreu Cabot
Title: Metal ions to control the morphology of semiconductor nanoparticles: Copper Selenide Nanocubes.
Journal: **Journal of the American Chemical Society**, **135**, 4664-4667
Year: 2013
Impact Factor (SCI): 11.444 (Q1; D1) **Times Cited (SCI):** 124

AUTHORS: Maria Ibáñez, Reza Zamani, Stephane Gorsse, Jiandong Fan, Silvia Ortega, Doris Cadavid, Joan Ramon Morante, Jordi Arbiol, Andreu Cabot
Title: Core-shell Nanoparticles as Building Blocks for the Bottom-Up Production of Functional Nanocomposites: PbTe-PbS Thermoelectric Properties.
Journal: **ACS Nano**, **7**, 2573-2586
Year: 2013
Impact Factor (SCI): 12.033 (Q1; D1) **Times Cited (SCI):** 173

AUTHORS: Muhammad Iqbal Bakti Utama, Qing Zhang, Jun Zhang, Yanwen Yuan, Francisco Belarre, Jordi Arbiol, Qihua Xiong
Title: Recent developments and future directions in the growth of nanostructures by van der Waals epitaxy.
Journal: Nanoscale, **5**, 3570-3588 **Invited Review (Feature Paper)**
Year: 2013
Impact Factor (SCI): 6.739 (Q1; D1) **Times Cited (SCI):** 191

AUTHORS: F. Shao, M.W.G. Hoffmann, J.D. Prades, R. Zamani, J. Arbiol, J.R. Morante, E. Varechkina, M. Rumyantseva, A. Gaskov, I. Giebelhaus, T. Fischer, S. Mathur, F. Hernández-Ramírez
Title: Heterostructured p-CuO (Nanoparticle)/n-SnO2 (Nanowire) Devices for Selective H2S Detection.
Journal: Sensors & Actuators B, **181**, 130-135
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Impact Factor (SCI): 3.840 (Q1; D1) **Times Cited (SCI):** 180

AUTHORS: M. Heiss, Y. Fontana, A. Gustafsson, G. Wüst, C. Magen, D. D. O'Regan, J.W. Luo, B. Ketterer, S. Conesa-Boj, A. V. Kuhlmann, J. Houel, E. Russo-Averchi, J. R. Morante, M. Cantoni, N. Marzari, J. Arbiol, A. Zunger, R. J.Warburton, A. Fontcuberta i Morral
Title: Self-assembled quantum dots in a nanowire system for quantum photonics.
Journal: **Nature Materials**, **12**, 439-444
Year: 2013
Impact Factor (SCI): 36.425 (Q1; D1) **Times Cited (SCI):** 415

AUTHORS: Muhammad Iqbal Bakti Utama,+ Maria de la Mata,+ Cesar Magen, Jordi Arbiol,* Qihua Xiong*
Title: Twinning-, Polytypism-, and Polarity-Induced Morphological Modulation in Nonplanar Nanostructures with van der Waals Epitaxy.
Journal: **Advanced Functional Materials**, **23**, 1636-1646
Year: 2013

Impact Factor (SCI): 10.439 (Q1; D1) **Times Cited (SCI):** 78
[+]Equal Contribution; * Corresponding Author

AUTHORS: Maria Ibáñez, Doris Cadavid, Umberto Anselmi Tamburini, Reza Zamani, Stéphane Gorsse, Wenhua Li, Alexey Shavel, Antonio Maria López, Joan R. Morante, Jordi Arbiol, Andreu Cabot
Title: Colloidal Synthesis and Thermoelectric Properties of Cu2SnSe3 Nanocrystals.
Journal: Journal of Materials Chemistry A, **1**, 1421-1426
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Impact Factor (SCI): 6.626 (Q1; D1) **Times Cited (SCI):** 108

AUTHORS: D. P. Weber, D. Rüffer, A. Buchter, F. Xue, E. Russo-Averchi, R. Huber, P. Berberich, J. Arbiol, A. Fontcuberta i Morral, D. Grundler, M. Poggio
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Journal: Nano Letters, **12**, 6139-6144
Year: 2012
Impact Factor (SCI): 13.025 (Q1; D1) **Times Cited (SCI):** 108

AUTHORS: Maria Ibáñez, Reza Zamani, Wenhua Li, Doris Cadavid, Stephane Gorsse, Nebil A. Katcho, Alexey Shavel, Antonio M. López, Joan Ramon Morante, Jordi Arbiol,* Andreu Cabot*
Title: Crystallographic Control at the Nanoscale to Enhance Functionality: Polytypic Cu2GeSe3 Nanoparticles as Thermoelectric Materials.
Journal: Chemistry of Materials, **24**, 4615-4622
Year: 2012
Impact Factor (SCI): 8.238 (Q1; D1) **Times Cited (SCI):** 97
* Corresponding Authors

AUTHORS: Jordi Arbiol,* Cesar Magen, Pascal Becker, Gwénolé Jacopin, Alexej Chernikov, Sören Schäfer, Florian Furtmayr, Maria Tchernycheva, Lorenzo Rigutti, Jörg Teubert, Sangam Chatterjee, Joan R. Morante, Martin Eickhoff
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Impact Factor (SCI): 6.233 (Q1; D1) **Times Cited (SCI):** 60
* Corresponding Author

AUTHORS: María de la Mata, Cesar Magen, Jaume Gazquez, Muhammad Iqbal Bakti Utama, Martin Heiss, Sergei Lopatin, Florian Furtmayr, Carlos Javier Fernandez-Rojas, Bo Peng, Joan Ramon Morante, Riccardo Rurali, Martin Eickhoff, Anna Fontcuberta i Morral, Qihua Xiong, Jordi Arbiol*
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Year: 2012
Impact Factor (SCI): 13.025 (Q1; D1) **Times Cited (SCI):** 202
* Corresponding Author

AUTHORS: Muhammad Iqbal Bakti Utama, Francisco J. Belarre, Cesar Magen, Bo Peng, Jordi Arbiol,* Qihua Xiong*
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Journal: Nano Letters, **12**, 2146-2152
Year: 2012
Impact Factor (SCI): 13.025 (Q1; D1) **Times Cited (SCI):** 143
* Corresponding Author

AUTHORS: Isaac Ojea-Jiménez, Xicotencatl Lopez, Jordi Arbiol, Victor Puntes
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Journal: ACS Nano, **6**, 2253-2260
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Impact Factor (SCI): 12.062 (Q1; D1) **Times Cited (SCI):** 224

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Journal: Journal of the American Chemical Society, **134**, 4060-4063
Year: 2012
Impact Factor (SCI): 10.677 (Q1; D1) **Times Cited (SCI):** 236

AUTHORS: A. Llordés, A. Palau, J. Gázquez, M. Coll, R. Vlad, A. Pomar, J. Arbiol, R. Guzmán, S. Ye, V. Rouco, F. Sandiumenge, S. Ricart, T. Puig, M. Varela, D. Chateigner, J. Vanacken, J. Gutiérrez, V. Moshchalkov, G. Deutscher, C. Magen, X. Obradors
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Impact Factor (SCI): 35.749 (Q1; D1) **Times Cited (SCI):** 400

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AUTHORS: Q. Zhang, J. Zhang, M. I. B. Utama, B. Peng, M. de la Mata, J. Arbiol, Q. Xiong
Title: Exciton-phonon coupling in individual ZnTe nanorods studied by resonant Raman spectroscopy.
Journal: Physical Review B, **85**, 085418
Year: 2012
Impact Factor (SCI): 3.767 (Q1) **Times Cited (SCI): 144**

AUTHORS: Cristina Flox, Javier Rubio-Garcia, Raquel Nafria, Reza Zamani, Marcel Skoumal, Teresa Andreu, Jordi Arbiol, Andreu Cabot, Joan Ramon Morante.
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AUTHORS: Maria Ibáñez, Doris Cadavid, Reza Zamani, Nuria García-Castelló, Victor Izquierdo-Roca, Wenhua Li, Andrew Fairbrother, Joan Daniel Prades, Alexey Shavel, Jordi Arbiol, Alejandro Pérez-Rodríguez, Joan Ramon Morante, Andreu Cabot.
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AUTHORS: Edgar González, Jordi Arbiol, Víctor F. Puntes
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Year: 2011
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AUTHORS: Bernt Ketterer, Martin Heiss, Emanuele Uccelli, Jordi Arbiol, Anna Fontcuberta i Morral
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Year: 2011
Impact Factor (SCI): 10.774 (Q1; D1) **Times Cited (SCI): 157**

AUTHORS: Emanuele Uccelli,[+] Jordi Arbiol,[+] Cesar Magen, Peter Krogstrup, Eleonora Russo-Averchi, Martin Heiss, Gabriel Mugny, François Morier-Genoud, Jesper Nygard, Joan Ramon Morante, Anna Fontcuberta i Morral
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Journal: Nano Letters, **11**, 3827-3832
Year: 2011
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[+] Equal Contribution

AUTHORS: Martin Heiss, Sonia Conesa-Boj, Jun Ren, Hsiang-Han Tseng, Adam Gali, Andreas Rudolph, Emanuele Uccelli, Francesca Peiró, Joan Ramon Morante, Dieter Schuh, Elisabeth Reiger, Efthimios Kaxiras, Jordi Arbiol, Anna Fontcuberta i Morral
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Journal: Physical Review B, **83**, 045303
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AUTHORS: Emanuele Uccelli,[+] Jordi Arbiol,[+] Joan Ramon Morante, Anna Fontcuberta i Morral
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Journal: ACS Nano, **4**, 5985-5993
Year: 2010
Impact Factor (SCI): 9.855 (Q1; D1) **Times Cited (SCI): 125**
[+] Equal Contribution

AUTHORS: Michael R. Rasch, Emma Rossinyol, Jose L. Hueso, Brian W. Goodfellow, Jordi Arbiol, Brian A. Korgel
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AUTHORS: Meléndrez, M. F.; Cárdenas, G.; Arbiol, J.
Title: Synthesis and characterization of gallium colloidal nanoparticles.
Journal: Journal of Colloid and Interface Science, **346**, 279-287

Year: 2010
Impact Factor (SCI): 3.066 (Q2) **Times Cited (SCI):** 154

AUTHORS: Alexey Shavel, Jordi Arbiol, Andreu Cabot
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Impact Factor (SCI): **9.019** (Q1; D1) **Times Cited (SCI):** 268

AUTHORS: Sònia Conesa-Boj, Ilaria Zardo, Sònia Estradé, Li Wei, Pierre Jean Alet, Pere Roca i Cabarrocas, Joan R. Morante, Francesca Peiró, Anna Fontcuberta i Morral, Jordi Arbiol*
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Journal: Crystal Growth & Design, **10**, 1534-1543
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*Corresponding Author

AUTHORS: Lim, S. I.; Ojea, I.; Varon, M.; Casals, E.; Arbiol, J.; Puntes, V.
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AUTHORS: D. Spirkoska, J. Arbiol, A. Gustafsson, S. Conesa-Boj, F. Glas, I. Zardo, M. Heigoldt, M.H. Gass, A.L. Bleloch, S. Estrade, M. Kaniber, J. Rossler, F. Peiro, J.R. Morante, G. Abstreiter, L. Samuelson, A. Fontcuberta i Morral
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Year: 2009
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AUTHORS: Jordi Arbiol,* Sònia Estradé, Joan D. Prades, Albert Cirera, Florian Furtmayr, Christoph Stark, Andreas Laufer, Martin Stutzmann, Martin Eickhoff, Mhairi H. Gass, Andrew L. Bleloch, Francesca Peiró, Joan R. Morante
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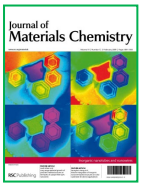
[+]Equal Contribution; *Corresponding Authors



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* Corresponding Author

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AUTHORS: Jordi Arbiol,* Elisabetta Comini, Guido Faglia, Giorgio Sberveglieri, Joan Ramon Morante
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AUTHORS: Emma Rossinyol, Anna Prim, Eva Pellicer, Jordi Arbiol, Francisco Hernández- Ramírez, Francesca Peiró, Albert Cornet, Joan Ramon Morante, Leonid. A. Solovyov, Bozhi Tian, Tu Bo, Dongyuan Zhao
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