

PERSONAL DETAILS

Debora Pierucci

Charge de recherche – INSP laboratory

Date of birth: 27 December 1982

Nationality: Italian

SUMMARY OF SCIENTIFIC PATHWAY

Over the past decade, I have developed extensive expertise in investigating the structural and electronic properties of nanomaterials. I have strong experience with large-scale facilities, having conducted my PhD research at the SOLEIL synchrotron (France) and worked as beamline scientist at the ALBA synchrotron (Spain) where I designed and constructed a new photoemission beamline with μm -beam size and *operando* capabilities, and I have continued as an active user of such instruments, averaging more than five beam times per year in the past five years. I have honed advanced experimental skills in photoemission techniques including time-resolved and angular-resolved photoemission, with a primary focus on semiconductors and 2D materials. Since becoming a CNRS researcher in France, I have continued to build on this expertise while seeking to explore new research directions that extend beyond fundamental studies. To this end, two years ago, I joined the INSP laboratory at Sorbonne Université to integrate into a research group more focused on device fabrication to develop my new activities related to *operando* investigations of the electronic properties of devices based on colloidal quantum dots and 2D materials.

EDUCATION

2013	PhD in Physical Chemistry Sorbonne Université (UPMC) Conducted at synchrotron SOLEIL and Sorbonne Université under the supervision of Francois Rochet and Fausto Sirotti
2010	Master II in Physics , Sorbonne Université (UPMC)
2008	Master I in Physics , University of L'Aquila (Italy)
2006	Bachelors in Physics University of L'Aquila (Italy)

CURRENT AND PAST POSITIONS

2023 – present	CNRS researcher at Institut des Nanosciences de Paris (INSP – UMR 7588) Sorbonne Université
2021 – 2022	CNRS researcher at Centre de Nanosciences et de Nanotechnologies (C2N – UMR 9001) Université Paris Saclay
04/2017 – 12/2020	Beamline scientist : beamline LOREA – ALBA synchrotron, Spain
2016 – 2017	Postdoctoral Researcher : Néel institute, Grenoble, France
2014 – 2016	Postdoctoral Researcher : Laboratory for Photonics and Nanostructures, France

SUPERVISION OF STUDENTS AND POSTDOCTORAL FELLOWS

Supervision of **PhD students**: 5 total – **post doc**: 3 total with 1 on going – **master students**: 5 total with 1 on-going.

SCIENTIFIC PUBLICATIONS AND CONFERENCES

I am author of ≈ 89 **papers in peer reviewed journals** (ORCID number: **0000-0001-8751-1994**). Six of these publications have each received over 100 citations, contributing to a total of **2833 citations (411 in 2024 alone)**, according to Google Scholar.

My research has been published in journals such as Nano letters (6 papers, one with >350 citations), ACS Nano (4 papers), ACS photonics (2 papers), Advanced Optical materials (5 papers), Advanced Functional Materials (4 papers) Phys Rev B. (10 papers) etc...

I have participated in several international conferences, contributing with **15 oral presentations** (9 of which were **invited talks**) and more than **20 poster presentations (Prize of best poster award: 2018 – ICESS, 2012 ECOSS)**. I have also delivered around 20 seminars in research laboratories.

ORGANIZATION OF SCIENTIFIC EVENTS

2022 – 2025	Member of the Organization and Scientific Committee for the Synchrotron Soleil User Meeting, held annually in St. Aubin, France, with approximately 200 participants each year
2024	Member of the Organizing Team of the Workshop: “30 ans de sciences des surfaces au LCPMR” – Paris, France 30 participants
2023	Member of the Organizing Team of Workshop of Nanocrystals – Paris, France 70 participants
2021– 2022	Member of the Scientific committee of the conference: National Days of PhotoEmission Spectroscopies (JNSPE) Dijon 2022 – 120 participants
2019– 2021	Member of the Organizing Team of the HERCULES European School (Neutron and Synchrotron Radiation for Science - the main European training event focused on large-scale facilities), specifically responsible for the ALBA Synchrotron section each year – 70 participants

PROFESSIONAL SERVICES

2021 – present	Member of the Research Federation on Photoemission Spectroscopies
2021 – present	Member of L'Oréal-UNESCO For Women in Science International Awards Peer review committee: Award evaluation for L'Oréal-UNESCO Award
2021 – 2025	Member of the SOLEIL synchrotron User Committee
2017 – 2021	Member of the HERCULES European School Organizing Committee
2021 – present	Applied Sciences Editorial Board member
2018 – present	SN Applied Sciences Editorial Board member (Springer Nature group)
2017 – 2020	Member of Hypatia Project with ALBA Synchrotron (EU Horizon 2020 outreach project)
2021 – present	Jury member for 5 PhD theses (Examiner)
2014 – present	Reviewer for international scientific journals: Nano letters, Advanced Materials, ACS Nano, Carbon, J. Physical Chemistry C and ACS applied nanomaterials (ACS group), Nanotechnology, Journal of Alloys and Compounds (Elsevier), Scientific Reports (Nature group)

TEACHING ACTIVITIES

2014 – 2015	Part-time lecturer at University Paris Diderot (Paris VI) (64 h): Topics: classical kinematics and dynamics
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