

## PERSONAL INFORMATION

### Laura Parellada Monreal



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Sex Female | Date of birth 24/05/1990 | Nationality Spanish

## WORK EXPERIENCE

September 2020 - Present

### Researcher

Fondazione Bruno Kessler, Trento, Italy

- Technology development and microfabrication process of Silicon detectors such as SiPM and 3D.
- Technology development on SiPM working on backside-illuminated mode and with Through Silicon Via (TSV) ready to be 3D integrated with the read-out electronics.
- TCAD process simulation
- Commissioning of a new cleanroom ISO 4 and ISO 5, including being part of four tender committees.

December 2019 – June 2020

### Postdoctoral researcher

Cirimat, Toulouse, France

- RF magnetron sputtering of metal oxide thin films.
- Electrical and microstructural material characterization.
- Study the performance of silicon microsensor platforms for NO<sub>2</sub> detection.
- Analysis, interpretation and presentation of results.
- Ph.D. supervision.

January - July 2015

### Internship

European Synchrotron Radiation Facility (ESRF), Grenoble, France

- Provide AFM expertise to the European Photon & Neutron Science Campus scientist.

## EDUCATION AND TRAINING

November 2015 – March 2019

### Ph.D. in Applied Engineering

Ceit-IK4 and University of Navarra, San Sebastián – Donostia, Spain

Title: Laser-nanostructured metal oxide semiconductors for conductometric gas sensors

- Cleanroom microfabrication of gas sensing devices based on ZnO and WO<sub>3</sub>.
- Nanostructuring of metal oxide thin films by nano- and femtosecond laser systems
- Gas sensing experiments
- 2D heat transfer equation simulation using Matlab.

September 2014 – July 2015

### International MSc of Nanosciences & Nanotechnologies: MSc 2 Nanophysics and Nanostructures,

ESRF – BM32 and Joseph Fourier University, Grenoble, France

- Title: GISAXS analysis of platinum nanoparticles grown on graphene/Ir(111)

September 2008 – June 2013

### BSc in Physics

University of Barcelona (UB), Barcelona, Spain

**PERSONAL SKILLS**

Mother tongue(s)	Spanish and Catalan
Other language(s)	English – C1-C2 Italian – B1 French – A1- A2
Job-related skills	Knowledge and experience in cleanroom microfabrication techniques (photolithography, DC and RF sputtering deposition, direct laser interference patterning (DLIP), femtosecond laser subwavelength patterning, dry and wet etching, ion implantation, wafer bonding-debonding, grinding, atomic layer deposition).  Knowledge and experience in material characterization techniques (AFM, SEM, GIXRD, Raman spectroscopy, TOF-SIMS, XPS).
Digital skills	Origin, MATLAB, SILVACO (TCAD), L-edit, LABVIEW, LaTeX.
Other skills	Organized, self-motivated, analytical, hands-on problem-solving skills, team player.

Trento 02/10/2023

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