Carmen Abia Sanz

2nd year PhD Student. Physicist.

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Info

Birth date February, 10th, 1996, Oviedo, Spain.

Address 6 Place d'Apvril, 38000 Grenoble, France.

Education

2019-currently **PhD in Materials Science & Physics**, *Institut Laue-Langevin*, in collaboration with *Instituto de Ciencia de Materiales de Madrid* (ICMM-CSIC), Grenoble, France.

Tailoring of new Perovskites for solar cells and their study with neutron and X ray diffraction

2018-2019 Master in Condensed Matter Physics and Nanophysics, Autonomous University of Madrid (UAM), Madrid, Spain.

2014-2019 Bachelor's degree in Physics, University of Oviedo, Oviedo, Spain.

Experience

Professional

2020-currently **PhD Representative**, *elected PhD Representative of the ILL Doctoral School*, Grenoble, France.

2020 (1 week) **Student**, *FullProf School*, Grenoble, France.

Course on FullProf Suite crystallographic programs (diffraction data treatment).

2019 (1 week) Student, Crystallography School, Jaca, Spain.

2019 (2 weeks) **Student**, *Hands-On Research in Complex Systems School*, Trieste, Italy. Programme on Photon Science.

2018 (8 weeks) Intern, DESY International Summer Student Programme, Hamburg, Germany. Programme on Photon Science.

2017 (4 weeks) Intern, ILL/ESRF International Summer Student Programme, Grenoble, France. Programme on X-Ray and Neutron Science.

2017 (2 weeks) Intern, MAX IV Laboratory, Lund, Sweden.
Internship at MAX IV Laboratory, synchrotron radiation facility.

2016 **Student**, *University of Barcelona (UB)*, Barcelona. Course on Microscopic Characterization Techniques.

Other

2017 (3 weeks) **Student**, *University of California*, San Diego.

Introduction to Big Data

2016 (2 weeks) **Student**, Viena, Austria.

German inmersion programme.

2013 (3 weeks) **Student**, Biarritz, France.

French inmersion programme.

2012 (3 weeks) **Student**, Biarritz, France. French inmersion programme.

2011 (6 months) **Student**, *Westdale High School*, Hamilton, Ontario (Canada).

International exchange programme in Canada.

Publications

2020 **IntechOpen**, Carlos A. Lopez, Maria C. Alvarez-Galvan, Carmen Abia, et al., Feb. 28th, 2020.

Structural Phase Transitions of Hybrid Perovskites $CH_3NH_3PbX_3$ ($X=Br,\ CI$) from Synchrotron and Neutron Diffraction Data.

2020 **ACS Omega**, *Carlos A. Lopez, Carmen Abia et al.*, 2020 5 (11), 5931-5938. Crystal Structure Features of CsPbBr₃ Perovskite Prepared by Mechanochemical Synthesis.

2020 **Scientific Reports**, Carlos A. Lopez, Carmen Abia et al., 10, 11228. Enhanced stability in $CH_3NH_3PbI_3$ hybrid perovskite from mechano-chemical synthesis: structural, microstructural and optoelectronic characterization.

Conferences and Seminars

2020 **ILL PhD Seminars 2019-2020**, *Institut Laue-Langevin*, Grenoble, France. Oral presentation about my PhD project

Languaje skills

Spanish mother tongue

English advanced 2014 – Cambridge English Advanced (CAE)

German intermediate French intermediate

Computer skills

Programming Python, Matlab, Mplab, LATEX, TikZ, pgfplots.

languages

Crystallographic FullProf Suite, JANA, WinGX.

software

Platforms Windows, macOS, Ubuntu.

Tools Office Suite, Origin.

Interests

Art and Music Education for 11 years. 2005-2016.