



# MARIE CRESP

PHD STUDENT AT THE INSTITUTE OF RESEARCH IN CHEMISTRY PARIS (IRCP) IN THE LABORATORY OF MATERIALS FOR PHOTONICS AND OPTOELECTRONICS (MPOE)



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## Formations

### National Graduate School of Chemistry of Montpellier (ENCSM)

2019 - 2022

Degree of Engineer in Chemistry Engineering  
Major in Materials Chemistry

### University of Montpellier (UM)

2021 - 2022

Master degree in Chemistry and Materials Sciences for Sustainable Development

### Two-year intensive undergraduate studies to integrate the Gay-Lussac Federation Schools in the National Graduate School of Lille (ENSCL)

2017 - 2019

## Hard skills

### Thin film formations

- Spin Coating
- Spray Pyrolysis
- Chemical Vapor Deposition
- Doctor blade

### Characterisations

- Cristallography: SEM, EDX, DSC, Thermogravimetric analysis
- Electrochemistry: J-V curves, EQE spectra, Spectrophotometry
- Optic: Photoluminescence, UV-visible spectrophotometry

## Soft skills

- Autonomy
- Presentation of scientific research
- Team work
- Time management

## Work Experiences

### Thesis about Chemical Engineering for the Synthesis of Highly Stable Perovskite Layers for Efficient Solar Cells Applications

Institute of Research in Chemistry Paris (IRCP)  
Scientific Research National Center (CNRS)

Oct. 2022 - Oct. 2025

- Working under the supervision of Dr Thierry PAUORTE
- Design of new efficient & stable perovskites for solar cells applications
- Characterisation by spectrophotometry, photoluminescence, XRD, SEM, EDX & Glow Discharge Optical Emission Spectroscopy
- Characterisation of solar cells by EQE measurements & J-V curves
- Aging measurements on layers and devices

### Research & Development Internship

Saint-Gobain Research Compiègne

Feb. 2022 - Aug. 2022

- Working under the direction of Dr Elise GARDIN
- Study of the physico-chemical phenomena involved in the corrosion of new mirrors in order to indentify new ways of improvement

### Research & Development Internship

CellMark Montpellier

Apr. 2021 - Aug. 2021

- Working under the direction of Dr Frederic ROQUEFEUIL
- Formulations and applications of coatings based on organometallics for the improvement of glass properties

## Languages

- French..... Mother tongue
- English.....(TOEIC score: 975/990) C1
- Spanish.....B2