

# Eva Jadot

First-year PhD student working on the combustion behaviors during the thermal runaway of lithium ion batteries and its modeling. PhD in partnership with SAFT, IFP Energies Nouvelles and ENSTA Paris.



# **Professional experiences**

Today ↑ October 2024 PhD – Modeling Combustion of the Emitted Gas during Thermal Runaway of Lithium-Ion Batteries.

SAFT, Bordeaux, France.

- Development of a detailed multiphase thermal runaway kinetic model to understand the evolution of gas-phase composition throughout the phenomenon.
- PhD in partnership with IFP Energies Nouvelles and EN-STA Paris.

August 2024

March

2024

Internship – Effect of NOx Addition on Fondamental Characteristics of Ammonia Combustion.

IFP Energies Nouvelles, Rueil-Malmaison, France.

- $\bullet$  Simulation of the effect of NO  $_x$  on NH  $_3/H_2$  combustion over ignition delay time, laminar flame speed and NO  $_x$  emissions.
- Experimental verification of the simulated effects using a rapid compression machine at PRISME Laboratory, Orléans.
- $\bullet$  Study towards potential  $\mathrm{NO}_{\mathrm{x}}$  recirculation technique for zero-carbon fuels.

February ( 2023

January

2023

Internship – Second-harmonic generation imaging.

ISM, Talence, France.

- Second-harmonic generation (SHG) imaging of materials.
- Determination of the structure of Douglas-fir.
- Analysis of protein crystals.

June 2022 ↑

May 2022 PLACAMAT, Pessac, France.

Internship – GDOES characterization of electrochromic films.

• Glow-discharge optical emission spectroscopy (GDOES) of electrochromic films.

- Realization of calibration curves for several elements.
- Analysis of the chemical composition of samples.



#### **Education**

2024 ↑ 2022 Master's Degree of Chemistry - Physical chemistry and chemical physics LIGHT S&T Graduate Program (Graduated).

University of Bordeaux, Talence, France.

#### **Courses and Achievements:**

- Courses, tutorials, and practical training in theoretical and experimental physics-chemistry.
- Choice of elective courses related to kinetics, surface analysis spectroscopy, and microscopy.

2022 ↑ 2019 Bachelor's Degree of Physics and Chemistry (Graduated).

University of Bordeaux, Talence, France.



# Contact



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#### **Skills**

- Physics and chemistry scientific background.
- Thorough understanding of scientific method for kinetics and combustion.
- Proficiency in programming languages.
- Analytical mind & critical thinking.
- Team spirit.
- Rigor.
- Curiosity.



### Tools

Office suiteFullyPython / FortranAdvancedChemkin ProIntermediateAmpacIntermediate



# Languages

French Native

English Fluent

Japanese Advanced



## Miscellaneous

- Vice-president of the PCCP master association.
- Volunteer delegate for exchange student in the PIE association.
- Judo.
- Running.