

Alexia Mercier - CV

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Academic knowledge and practical skills in nuclear science, chemistry, chemical engineering and lab operations.

Project Management experience in international labs and startups.

Launched successful collaborations between public research institutions and private partners.

Experience setting up websites, editing blogs and organizing STEM events.

Fluency in English and French, basic proficiency in Vietnamese.

Experience

Jussieu Technologies

Founder

04/2019 - Present

Scientific & Environmental Consulting

Seaborg Technologies

Copenhagen, Denmark

Chemist & assistant manager

01/2020 - 09/2021

- Running **corrosion studies** in molten **fluoride** salts and molten sodium **hydroxide** (**Glovebox**, **SEM**, **OM**, **microprep**)
- Collecting **thermophysical data** for molten salts
- **Designing, testing and optimizing setups** dedicated to molten salts
- Leading multiple **partnerships between the company, local universities and european research labs**
- Managing of all the **digital operation tools** for the chemistry department
- Handling **suppliers relationships**: definition of equipment specifics, negotiating, testing
- **Supervising** interns, **onboarding and training** senior **scientists**

→ Work led to first implementation of project management in the chemistry department, first research roadmap and mission statement in the company, and new relationships with suppliers. Chemistry findings led to significant updates of reactor design and updates in lab setups.

Astier de Villatte

Paris, France

Consultant - Product Developer

02/2019 - 09/2020

- Determining **natural cosmetics specifications** and **creating and testing** the products **prototypes**
- Conducting **eco-friendly packaging market research** and investigating **regulation compliance**
- **Setting up** an in-house fragrance **laboratory**
- Writing experiment **protocol & report**, **leading** experiment, analyzing lab test results
- **Managing** and **outsourcing** to Extraction, Formulation and Analytical Laboratories

→ Findings led to change of multiple suppliers, update of formulations coupled with the development of new products, and regulatory compliance.

Radiochemistry Lab, Poineau Group, University of Nevada Las Vegas

Las Vegas, USA

Research Scholar

03/2019 - 07/2019

Small scale Synthesis of Uranium metal from Uranium Oxide for Nuclear Forensics.

- Preparation of **Cerium Halides**, **Uranium Halides** and **Dysprosium Iodide** - **Schlenk line** setup
- **Arc melting** of CeI_3 , UI_4 , UI_3 and UO_2
- **Reduction** of Cerium Halides and Uranium Halides with Dysprosium Iodide - **Glovebox**
- **Structural studies**: Scanning Electron Microscopy (**SEM**), X-ray Single and Powder Diffraction (**XRD**), Thermogravimetric analysis (**TGA**)

Les Alchimistes

Paris, France

Consultant - Chemist

09/2018 - 02/2019

- Studying the behaviour of used **PLA** plastic bottles mixed with biowastes in **compost reactor**
- **Designing** experiment protocols & reporting, **leading** experiments, **analyzing** lab test results
- Setting up **collaboration environment** and **issue tracker**

→ Findings published in a press release, presented on French television, and led to additional fundings for the company. Analysis of the results also revealed flaws in the methods to determine PLA content in compost, which was flagged to the analytical lab.

[Atmospheric Chemistry Lab, Bertram Group, University of British Columbia](#)

Vancouver, Canada

Research Intern

04/2018-08/2018

- **Analysing freezing properties** of cyanobacteria from Antarctic sea-surface microlayer samples to produce better **climate models**
- **Improving setups** with custom designed components to conduct droplet freezing point and melting point experiments in order to determine the presence of **Ice Nucleating Particles** (INPs) and their nature
- **Putting together a team** of researchers and developers to build a **MatLab script** to **automate** video processing and data analysis

→MatLab script and setup are still actively in use by the research group and lead to multiple publications as well as further collaboration between departments.

[Polymer Chemistry Lab, University of Natural Sciences of Ho Chi Minh City](#)

Ho Chi Minh City, Vietnam

Research Intern

05/2017-07/2017

- Synthesis and characterisation of **Nano-Chitosan particles** for **remediation** of surface **waters** of Ho-Chi-Minh City
- **Chitin** extraction out of crustaceans to form chitosan nanoparticles
- Measuring **sorption of heavy metals** on Chitosan NPs using **AAS for Lead and UV-Vis spectroscopy for Copper**
- **Cooperating** with researchers from **CARE-Rescif** on sediment transfer in mangroves, water quality, contaminants, and their impact on health

Other

[Nuclear Innovation Bootcamp](#)

OECD, Paris

19/08/2019-30/09/2019 Participant

05/08/2021 Alumni representant

[Greynoise Podcast](#)

Synshop, Las Vegas

Guest Host

Eps 203, 205, 206, 207, 208

- Joined the Greynoise team as a host to talk about news in science and technologies in a weekly podcast.

[Privacy-oriented Blockchains for Nuclear Non-proliferation](#)

Blockshop, Washington DC

Organiser

29/12/2018

- Planned an event gathering nuclear scientists from Sandia, PNNL, LLNL, Air Force veterans, and blockchain professionals.
- Wrote the review of the event.

[Association Double Licence Bicursiosité](#)

Web Designer and Editor

09/2018 - 09/2020

- Built an SSG website using Hugo and GitLab Pages.
- Managed content contributors and edited blog posts.

Education

Sorbonne University, France

Master of Science in **Chemistry**, specialisation in Chemical Engineering, **Honours**

09/2017-09/2019

National University of Singapore, Singapore

Majoring in **Chemistry** and **History**

08/2016-05/2017

Sorbonne University, France

Bachelor of Science in **Chemistry**, **Honours**

Bachelor of Arts in **History**, **Honours**

09/2014-05/2017