



MAXIME ZITOUNI

PHYSICAL CHEMISTRY MASTER STUDENT

CONTACT

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EDUCATION

PCCP LIGHT MASTER

2022-2024

University of Bordeaux

CHEMISTRY BACHELOR

2019-2022

University of Bordeaux

COMPUTER SKILLS

Python

LateX

Gaussian (with AMPAC)

Fortran

Pack Office

SKILLS

Punctual - Diligent

Rigorous - Curious

Autonomous

Hability to work in a team

HOBBIES

Sport : Basketball, Fitness,

Running, Cycling, ...

Cinema / Music

Traveling

WHO IS MAXIME?

Maxime is a 22-years-old student in second year of Physical and Chemistry Master in Bordeaux. His master is called PCCP Light Graduation program and is international. The ultimate goal of Maxime is to do a PhD in order to work as a researcher in science, something he's always wanted to do, ever since he was a child. But don't be fooled, because although he's very serious, Maxime still knows how to have fun, and that's why he's such a pleasure to work with.

MAIN LECTURES

First Year Lectures

- ♥ Quantum Physics and Chemistry
- ♥ Computational Science (Python, Fortran)
- ♥ Chemical Bonding (Bonding in Solids, Inorganic and Coordination Chemistry, Orbital Frontier Theory)
- ♥ Structural Analysis of Solids (X-Ray, Microscopy, DRX, Symmetry, Experimental)
- ♥ Physical Chemistry of Polymer in Solution
- ♥ Solid State Physics
- ♥ Spectroscopy (Linear Optics, IR, Raman, FTIR)

Second Year Lectures

- ♥ Statistical Thermodynamics
- ♥ Kinetic of Reactions
- ♥ Magnetic and Dielectric Properties
- ♥ Molecular Modeling (Molecular Dynamics Simulations, Monte Carlo methods)
- ♥ Photonics, Lasers and Imaging (Non Linear Optics, Nanoscale Characterisation)
- ♥ Experimental Chemistry
- ♥ My Personal Favourites!!

LABORATORY EXPERIENCES

M1 INTERNSHIP - SOLVAY, LABORATORY OF FUTURE (LOF), BORDEAUX JEAN-NOËL TOURVIEILLE

Microrheological modeling of lithium-ion battery anode slurry | January 2023 - March 2023

- Transcription of a whole slurry model into an optimized Python code
- Study on theoretical interactions between particle, polymer and solvent that occurs during the slurry of a battery
- Work on the state of the art about rheological/microrheological modeling on battery electrodes or electrolyte
- Theoretical reflection by modifying some parameters using Python

3RD YEAR BACHELOR INTERNSHIP - CNRS, SOLVAY (LOF), BORDEAUX DR. DHARSHANA NALATAMBY, DR. PIERRE LIDON

Viscosity measurements using fluorescent molecular rotors | April 2022 - June 2022

A lot of experimental and analytical chemistry :

- Rheology study with viscometer
- Tension surface measurement with tensiometer
- Spectroscopy of absorption and emission with UV and Fluorescent Spectrophotometer
- Fluorescence lifetime analysis with a microscope device called LIFA (Lambert Instruments FLIM Attachment)
- Metal coating on glass with Coating Metallizer and surface analysis of this glass with Optical Profilometer

CHEMICAL SAMPLER - DORDOGNE DISTRICT ANALYSIS & RESEARCH LABORATORY, PÉRIGUEUX

Collecting sample of Water and analysis | June 2022 - August 2022

- Ph and Chlorine Measurements to certify compliance with public swimming pool, river or lake standards
- Pollution analysis on different samples