

CONTACT

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- ♠ @MOLTECH-Anjou

# PERSONAL STATEMENT

Electrochemist and organic chemist, looking forward to enrich my experience in the research field, as well as to improve my tutoring skills.

Always ready to take on new challenges and believe that chemistry can make a difference to some modern global issues, inspiring me to persue a researcher/tutor career.

#### **LANGUAGES**

English

French

Arabic (mother-tongue)

#### **EDUCATION**

2021-2024

PhD in Physical Chemistry (*in progress*)

MOLTECH-Anjou laboratory, University of Angers

2020-2021

Master 2 LUMOMAT

Faculty of Science, University of Angers (Grade: 14.8/20-Rank 2/14)

2019-2020

Master 1 of Physical Chemistry of materials Faculty of Science II, Lebanese University (Grade: 17.3/20-Rank 2/22)

2016-2019

Bachelor of Chemistry (PC program)

Faculty of Science II, Lebanese University (Grade: 15.8/20)

## **INTERNSHIPS**

February-June 
2021

M2 internship at MOLTECH-Anjou laboratory

Supervisor: Dr. Christelle GAUTIER

Project: "Synthesis of specially designed diazonium salts for surface functionalization by controlled mixed layers"

October-November 2020 One-month internship at MOLTECH-Anjou laboratory

Supervisors: Prof.Tony BRETON, Dr. Laure PICHEREAU Project: "Nanofilms grafting for functional nanomaterials - Layer growth control"

March-May 2020 M1 bibliographic internship (due to sanitary issues) at the Faculty of Science, Lebanese University

Supervisors: Dr. Majida JALBOUT & Dr. Amine KASSOUF Project: "Improvement of gas barrier properties of polyethylene terephthalate (PET) by integrating graphene nanoplatelets (NPG)"

#### PROFESSIONAL EXPERIENCE

Angers, France 2021-2024

Bachelor tutor

Teaching bachelor students at the Faculty of Science, University of Angers (practical and theoretical work)

South Lebanon 2019-2020 Owner & Manager of an academic support center Managing an educational center, assisting students in their academics, and enhancing their performance

Beirut, Lebanon (2018-2019

2015-2019

Tutor within an academic support center

Member of a certified tutors team in an educational center, offering our expertise and personalized support to students

Beirut South Lebanon

Private tutor

Private lessons for baccalaureate and high school students seeking help in scientific subjects

#### TUTORING EXPERTISE

THEORETICAL & PRACTICAL WORK

Teaching bachelor students (Lo, L1, L2 &L3) chemistry subjects: Electrochemistry, Kinetics, Solution chemistry, Titration, Chromatography Total of teaching hours: 128

SUPERVISION OF INTERNSHIP STUDENTS

Supervising students for L2, L3 & M2 internships at MOLTECH-Anjou laboratory

### **CONFERENCE CONTRIBUTIONS**

ORAL COMMUNICATIONS

GDR-PES 2023 in Nantes, France (27 & 28 November 2023)

Elie BOU RAHHAL, Marylène Dias, Christelle GAUTIER

"Controlled TEMPO-based layers: From the elaboration to the electrocatalysis application"

Rest oral communication award

ElecNano-10th edition in Paris, France (10-12 May 2023)

Elie BOU RAHHAL, Marylène Dias, Christelle GAUTIER

"Formation of TEMPO-based layers by reduction of specially designed diazonium salts"

# POSTER PRESENTATIONS

SCF congress 2023 in Nantes, France (26-28 June 2023)

Elie BOU RAHHAL, Marylène Dias, Christelle GAUTIER

"Elaboration of controlled mixed layers by reduction of specially designed diazonium salts"

Rest poster presentation award

Scientific day SCF-SPF in Rennes, France (24 May 2023)

Elie BOU RAHHAL, Marylène Dias, Christelle GAUTIER

"Elaboration of controlled mixed layers by reduction of specially designed diazonium salts"

Best poster presentation award

EUR-LUMOMAT days in Angers, France (18&19 October 2022)

Elie BOU RAHHAL, Marylène Dias, Tony Breton, Christelle GAUTIER

"Surface functionalization with controlled mixed layers by reduction of specially designed diazonium salts"

SCF-BPL congress in Noirmoutier, France (27-29 June 2022)

Elie BOU RAHHAL, Marylène Dias, Tony Breton, Christelle GAUTIER

"New design of diazonium precursors for mixed layers elaboration on conductive surfaces"

Journée de l'école doctorale (JED) 2022 in Rennes, France (02 June 2022)

Elie BOU RAHHAL, Marylène Dias, Tony Breton, Christelle GAUTIER

"New design of diazonium precursors for mixed layers elaboration on conductive surfaces"

EUR-LUMOMAT day in Rennes, France (26 April 2022)

Elie BOU RAHHAL, Marylène Dias, Tony Breton, Christelle GAUTIER

"New design of diazonium precursors for mixed layers elaboration on conductive surfaces"

# **CERTIFIED PARTICIPATIONS**

Journée de l'école doctorale (JED) 2023 in Nantes, France (25 May 2023)

Journées d'électrochimie (JE) 2022 in Mons, Belgique (4-7 July 2022)

# SCIENCE POPULARIZATION

Nuit Européenne des chercheurs 2023 in Angers, France (29 September 2023) LEGO game visualizing nanomatrials conception

Popularization of M2 internship project
 LEGO game visualizing surface functionalization by reduction of diazonium salts for sensing applications

#### **SCIENTIFIC PUBLICATIONS**

HARNESSING ARYLDIAZONIUM SALTS REDUCTION FOR TAILORED BI-FUNCTIONALIZED SURFACE ENGINEERING

Julien BILLON, Elie BOU RAHHAL, Tony BRETON, Christelle GAUTIER Submitted on December 15th 2023, Chemistry of Materials

#### **SKILLS**

# **TECHNICAL SKILLS**

- Electrochemical characterization technics: CV, CA, EIS,...
- Gravimetric technic: Quartz crystal microbalance-QCM
- Organic Synthesis & Chromatography technics
- Spectroscopic technics: NMR, UV-Visible, AFM, XPS, IR
- PPF substrates preparation for AFM & XPS analysis
- Mass spectrometry

# **COMPUTING SKILLS**

- Microsoft Office Suite
- ChemDraw, ChemDraw 3D
- Sigmaplot, Spectragryph
- MestReNova
- EC-lab

#### **REFERENCES**



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# Dr. Marylène DIAS

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