

**Salim Brahimi**

Date of birth: [REDACTED] Place of birth: [REDACTED] Nationality: [REDACTED] Gender: Male

Phone number: [REDACTED] Email address: [REDACTED]

Email address: [REDACTED] Email address: [REDACTED] LinkedIn: [REDACTED]

Address: [REDACTED]

**WORK EXPERIENCE**

08/01/2022 – 31/12/2024 Messina, Italy

**PHD IN MATERIALS AND CONSTRUCTION ENGINEERING AND CHEMISTRY (PENDING DEFENSE) UNIVERSITY OF MESSINA**

I have completed my PhD research on developing novel bioplastic materials incorporating agrifood waste streams. My work has focused on enhancing the quality, performance, and environmental sustainability of these value-added bioplastics, contributing to the advancement of a circular economy model. I am currently awaiting my PhD defense.

01/08/2024 – 30/11/2024 Turku, Finland

**DOCTORAL RESEARCH INTERNSHIP ÅBO AKADEMI UNIVERSITY – NATURAL MATERIALS TECHNOLOGY TEAM**

- Conducted research as part of PhD studies, focusing on developing innovative bioplastics for the circular economy.
- Performed 3D printing experiments using various composite formulations developed during the doctoral project.
- Performed comprehensive physico-mechanical tests to evaluate the properties and performance of printed bioplastic composites.
- Collaborated with the university's research team and leveraged advanced laboratory facilities for material characterization and testing.

06/2019 – 08/08/2019 Košice , Slovakia

**UNIVERSITY RESEARCH SUPPORT SLOVAK ACADEMY OF SCIENCES; INSTITUTE OF MATERIALS RESEARCH - DIVISION OF STRUCTURAL CERAMICS**

- Investigation of the physicochemical and mechanical properties of the hydroxyapatite synthesized by wet chemical from raw material at different experimental conditions. Characterization of samples by SEM, EDX, DRX, nano-indentation, density, and porosity measurements by He pycnometer, thermal analysis DSC-TG of different sintered samples at different temperatures.

10/10/2018 – 20/03/2019 Sétif , Algeria

**TEACHING ASSISTANT IN UNIVERSITIES UNIVERSITY FERHAT ABBAS SETIF 1**

- powder metallurgy techniques: Introduction to the preparation of ceramic products by the technique of powder metallurgy
- practical work Training
- coaching bachelor's students (4 hours/week)

17/01/2015 – 16/06/2015 Algiers, Algeria

**ENGINEERING PROJECT ASSISTANT COMPANY OF INDUSTRIAL VEHICLES SNVI**

- practical training in industrial heat treatments and the different manufacturing processes for mechanical parts of industrial vehicles

13/01/2014 – 12/05/2014 El Eulma, Algeria

**QUALITY CONTROL ENGINEER COMPANY OF MEASURING AND CONTROL DEVICES AMC**

- materials metrology in the industry
- accompany the customer in the production of mechanical parts by carrying out maintenance and calibration activities on measuring instruments



**EDUCATION AND TRAINING**

08/01/2022 – 31/12/2024 Messina, Italy

**PHD DEGREE IN MATERIALS AND CONSTRUCTION ENGINEERING AND CHEMISTRY** University of Messina

Website <https://www.unime.it/>

09/2014 – 07/2016 Algiers, Algeria

**MASTER'S DEGREE IN MATERIALS, SURFACE AND INTERFACE** University of Science and Technology Houari Boumediene

Website <https://www.usthb.dz/> | **Final grade** 12.66/20 (Final grade was calculated as the average of 1st year (11.51/20) & 2nd year (13.50/20))

10/2011 – 06/2014 Sétif, Algeria

**BACHELOR'S DEGREE IN MATERIALS TECHNOLOGY** University Ferhat Abbas Setif 1

Website <https://www.univ-setif.dz/> | **Final grade** 11.16/20 (Final grade was calculated as the average of 1st year (10.11/20), 2nd year (10.49/20) &

El Eulma, Algeria

**HIGH SCHOOL DIPLOMA IN SCIENCE** Larbi Ben M'hidi High School

**LANGUAGE SKILLS**

Mother tongue(s): **ARABIC**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	B2	B2	B2	B2	B2
<b>FRENCH</b>	C1	C1	B2	B2	B2
<b>ITALIAN</b>	B1	B1	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

**CONFERENCES AND SEMINARS**

25/09/2024 – 27/09/2024 Heraklion, Greece

**RETASTE: Rethink Food Resources, Losses, and Waste 4th International Conference**

Bioplastics from renewable sources: physical-mechanical characterization and biodegradation in soil

25/09/2024 – 27/09/2024 Heraklion, Greece

**RETASTE: Rethink Food Resources, Losses, and Waste 4th International Conference**

26/08/2024 – 30/08/2024 Turku, Finland

**17th European Workshop on Lignocellulosics and Pulp**

Agri-food waste as a sustainable filler in biocomposites

01/09/2024 – 04/09/2024 Palermo, Italy

**11th Conference of the Modification, Degradation, Stabilization of Polymers**

A Study on Bioplastic Obtained From Renewable Sources: Material's Characterization and Biodegradation in Soil

01/09/2024 – 04/09/2024 Palermo, Italy

**11th Conference of the Modification, Degradation, Stabilization of Polymers**

Photo-Degradation Effects of Bio-Polybutylene succinate Exposed To UVC Rays

06/12/2023 – 09/12/2023 India

**Effect of photodegradation ageing on the performance of biopolybutylene succinate**



The second edition of the International Conference on Energy and Environmental Materials INCEEM, organized by the School of Basic Sciences and the Department of Research in Environmental Sciences at Sharda (India), was held online

03/09/2023 – 05/09/2023 Sofia, Bulgaria

**Workshop on polymers and biopolymers for sustainable Life, MoDeSt**

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Tribological Behavior of Modified UHMWPE Against EBM-produced Ti6Al4V

03/09/2023 – 05/09/2023 Sofia, Bulgaria

**Workshop on polymers and biopolymers for sustainable Life, MoDeSt**

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Biodegradation of agrifood waste/polybutylene succinate biocomposites

03/09/2023 – 05/09/2023 Sofia, Bulgaria

**Workshop on polymers and biopolymers for sustainable Life, MoDeSt**

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Resistance of Bio-Polybutylene Succinate to Photodegradation Induced by Exposure to UVC Rays

13/12/2022 – 15/12/2022 Khenchela, Algeria

**1st International Conference on Materials Science and Technology**

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Degradation of PBS (Polybutylene Succinate) under UV-C rays and in soil

05/05/2022 – 06/05/2022 Madrid, Spain

**Workshop for Young Researchers in Ceramics and Glasses for Medical Applications, Y-CGMED 2022**

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Exploration of the effect of sintering temperature on naturally occurring hydroxyapatite/ Na<sub>2</sub>SiO<sub>3</sub> glass-ceramic for potential biomedical application

20/10/2021 – 23/10/2021 Novi Sad, Serbia

**14th Conference for Young Scientists in Ceramics, CYSC 2021**

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The effect of sodium silicate on in vitro bioactivity and mechanical properties of hydroxyapatite bioceramics extracted from natural camelus bone

28/01/2021 – 29/01/2021 Florida, USA

**The American Virtual Winter Workshop, organized by the ceramics and glass industry foundation (Online Event)**

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Attending and actively participating in talks and insights about innovations in the ceramics field to stay updated on the latest advancements and emerging trends

11/11/2019 – 12/11/2019 Sétif, Algeria

**3rd International Conference of Mechanics and Materials**

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Preparation and characterization of bioceramic powder from "Guelma" hydrothermal limestone

07/11/2018 – 08/11/2018 Blida, Algeria

**National seminar on process engineering**

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Synthesis of bioceramics HAP from natural resources

19/03/2018 – 20/03/2018 Algiers, Algeria

**International Symposium on Materials Chemistry**

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Influence of the calcination temperature on the chemical composition of Algerian natural phosphate

07/11/2017 – 08/11/2017 Boumerdes, Algeria

**3rd International Congress on Materials and Sustainable Development**

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Characterization of local phosphate for use as biomaterial

**PUBLICATIONS**

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2024

**Mechanical and Physical Changes in Bio-Polybutylene-Succinate Induced by UVC Ray Photodegradation**

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Scolaro, C., Brahimi, S., Falcone, A., Beghetto, V., & Visco, A. Polymers



2024

**Vitamin E effects on the wear resistance of UHMWPE sheets against an EBM-produced Ti6Al4V pin**

Visco, A., Brahim, S., Giudice, F., Scolaro, C., & Sili, A. Materials Letters

2023

**Plastics today: Key challenges and EU strategies towards carbon neutrality: A review**

V.Beghetto, V.Gatto, R.Samiolo, C.Scolaro, S.Brahimi, et al.(2023). Environmental Pollution

2022

**Agri-Food Wastes for Bioplastics: European Prospective on Possible Applications in Their Second Life for a Circular Economy**

A.Visco, C.Scolaro, M.Facchin, S.Brahimi, H.Belhamdi, et al.(2020). Polymers

2022

**Preparation and Characterization of Biocomposite Based on Chitosan and Biomimetic Hydroxyapatite Derived from Natural Phosphate Rocks**

S.Brahimi, et al.(2021), Materials Chemistry and Physics

2020

**Cu<sub>2</sub>O addition and sintering temperature dependence of structural, microstructural and dielectric properties of CaCu<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub> ceramics**

R.Djafar, K.Boumchedda, A.Chaouchi, S. Brahim, et al.(2020). Materials Chemistry and Physics

2024

**Biodegradable Bio Composites from Beer Spent Grain and Polybutylene Succinate**

V. Beghetto, A. Visco, N. Bardella, C. Scolaro, S. Brahim, H. Belhamdi, V. Gatto, R. Samiolo, Biodegradable Bio Composites from Beer Spent Grain and Polybutylene Succinate, (2024). <https://doi.org/10.2139/ssrn.4984691>.

## ● NETWORKS AND MEMBERSHIPS

04/09/2023 – CURRENT Palermo

**Modification, Degradation, Stabilization of Polymers Society MoDeSt**

Link <http://modest.org.uk>

18/01/2023 – CURRENT Florence

**Young CUCS - Early Career Scientists network of the Italian University Coordination for Development Cooperation**

## ● DIGITAL SKILLS

Microsoft Office package: Microsoft Word, Excel, PowerPoint, Access | Team-work oriented | Flow chemistry lab techniques | Mechanical analysis | Knowledge of chemical-physical properties of materials, like polymers and catalysts | elaboration of materials | Polymer Blending with Internal mixer/ extruder/ Two-roll mill | 3D printing modelling | Physico-chemical characterization of materials | Material characterizations | Product quality control

*Aware of the criminal liability provided for by art. 76 of the Presidential Decree 445/2000, for the hypothesis of falsification of documents and false declarations indicated therein, it is hereby declared that pursuant to art. 46 and 47 of Presidential Decree 445/2000, what is reported corresponds to the truth. I authorize the processing of data pursuant to Legislative Decree 196/03.*

Messina, 27/02/2025

