

Cheikh Reda Bernaoui

Research Chemist|Specialist in Environmental Chemistry, Nanomaterials, and Energy Storage

Professional Profile

Ph.D. Research Chemist with expertise in environmental chemistry, solar energy materials, and advanced battery technologies. Brings 7+ years of industrial experience in petroleum refining. Demonstrates strong interdisciplinary collaboration, adaptability in global research settings, and a proven track record of innovative problem-solving.

Education

•Ph.D.in Chemistry

University of USTO-MB Oran, Algeria (2023)

Thesis: Synthesis of Magnetic Nanoparticles for Water Treatment

•Erasmus+ Research Fellow (Ph.D. Program)

University of Cádiz, Spain (2022)

Focus: Materials for Solar Energy Conversion

• Master's degree in chemistry

University of USTO-MB Oran, Algeria (2017)

Thesis: Soil Contamination by Hydrocarbons and Valorization of Waste Sludge from Refineries

•Diploma of Higher Technician in Refining and Petrochemicals

Algerian Petroleum Institute (IAP) (2015)

Professional Experience

•Junior Postdoctoral Researcher

Sapienza University of Rome, Italy (2024-Present)

◦ Research focus: Lithium-metal battery technologies

Collaboration within multidisciplinary energy storage projects

•Senior Exploitation Technician

Refinery of Algeria (Sonatrach) (2015-2022)

◦ Specialized in oils, analytical testing, and process optimization in refining and petrochemical products

Contributed to security compliance and technical operations

•Experimental Researcher

Synchrotron SOLEIL, SMIS Beamline, Paris, France (2025)

Project:Crystallization and Argon Effusion in Amorphous Nanoparticles
Coatings for Gravitational Wave Detection

Publications & Conferences

- Authored peer-reviewed paper on environmental materials
- Participant in national and international scientific conferences and seminars

Technical Skills

- Synthesis and characterization of nanoparticles
- Battery assembly and electrochemical testing (coin cells, L-cells) also cyclers.
- Laboratory instrumentation (FTIR, SEM/EDS, UV-Vis, XRD, XRF)
- Familiarity with cleanroom protocols and synchrotron techniques
- Team-based RCD collaboration and project documentation

Languages

- **Arabic** (Native)
- French, English (Fluent)
- Spanish, Italian (Intermediate/Conversational)

Soft Skills

- Strong problem-solving and analytical thinking
- Effective communication and teamwork across cultures
- Adaptability to new lab environments and instrumentation
- Ethics-driven, detail-oriented, and committed to scientific integrity