



AMOURI Amira

Assistant professor at Preparatory Institute for Engineering Studies in Gabès IPEIGb, University of Gabès, Tunisia.

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EDUCATIONAL QUALIFICATION DETAILS

• **2010-2015:** Thesis under joint supervision

Laboratory of Multifunctional Materials and Applications (LaMMA), Faculty of Science of Sfax (FSS), University of Sfax, Sfax, Tunisia.

Laboratory of Colloïdes, Verres and Nanomatériaux (L2C), at University of Montpellier 2, (UMII), Montpellier, France.

Thesis entitled: "**Study of the evolution of magneto-electric properties in ferroelectric systems doped by a magnetic element.**"

Academic degree: **Dr. of Physics (PhD)** Mention: very honorable

• **2009-2010:** Second year of Research Master: Master of Physics condensed materials, Laboratory of Multifunctional Materials and Applications (LaMMA), Faculty of Science of Sfax (FSS), University of Sfax, Sfax, Tunisia.

Research Master entitled: "**Study of the crystal dynamics of phase transition Ferro electric in the derivative system $(\text{Na}_{0.5}\text{Bi}_{0.5})\text{TiO}_3$** "

Academic degree: **Master's degree in Physics of Condensed materials** Mention: very well

• **2008-2009:** First year of Research Master : Physics Master of condensed materials, Faculty of Sciences of Sfax (FSS), Sfax, Tunisia.

• **2006-2008:** 2nd cycle: Physics (PP), Faculty of Sciences of Sfax (FSS), Université de Sfax, Tunisie. Academic degree: **Physics Teacher's Degree** Mention: Good enough.

• **2004-2006:** 1st cycle: Physical Science (SP), Faculty of Sciences of Sfax (FSS), Université de Sfax, Tunisie. Certificate 1st cycle in Physics (DL) Mention: Good enough.

• **2003-2004:** Bachelor of Experimental Sciences, High School "Nasria Sghira" in Sfax, Tunisia. Mention: Good enough.

PROFESSIONAL EXPERIENCE

❖ University education

• **2022--2026:** Assistant professor in Physics, at the Preparatory Institute for Engineering Studies of Gabès IPEIGb, University of Gabès, Gabès, Tunisia.

• **2020-2021:** Assistant teacher of Physics at Sfax Preparatory Engineering Institute, University of Sfax, Sfax, Tunisia.

• **2019-2020:** Assistant teacher of Physics at the Faculty of Sciences of Gabès, University of Gabès, Gabès, Tunisia.

• **2017-2019:** Assistant teacher of Physics at Higher Institute of Arts and Crafts of Tataouine, University of Gabès, Tataouine, Tunisia.

2017-2019: Educational coordinator in physical sciences for both 1st year and 2nd year applied degree in education and teaching at the Higher Institute of Arts and Crafts of Tataouine, University of Gabès, Tataouine-Tunisia.

• **2014-2016:** Assistant teacher of Physics at the Faculty of Sciences of Sfax, University of Sfax, Sfax, Tunisia.

❖ Other professional experiences

2015-2020: Post-doc in Laboratory of Multifunctional Materials and Applications (LaMMA), Faculty of Science of Sfax (FSS), University of Sfax, Sfax, Tunisia.

Research project entitled: "**New materials for perovskite-based photovoltaic cells**"

❖ Secondary education

2008--2023: Secondary school teacher in Physical sciences, Republic of Tunisia Ministry of Education and Training, Sfax, Tunisia.

❖ Internships

PROFESSIONAL INTERNSHIPS

From 01/10/2022 to 30/11/2022: Two-month internship **Frame: The Excellence Project "Innovation Post-doc"**

RESEARCH INTERNSHIPS

2011-2014: 21 months of several internships in two laboratories:

- Laboratory of Multifunctional Materials and Applications (LaMMA), Faculty of Science of Sfax (FSS), University of Sfax, Sfax, Tunisia.
- Laboratory of Colloïdes, Verres and Nanomatériaux (L2C), at University of Montpellier 2, (UMI), Montpellier, France.

Frame: International mobility "Erasmus Mundus": Excellence Scholarship AVERROES

SCIENTIFIC PRODUCTIONS

H-Index: 9; RG-Score: 70,01

Web link to Google Scholar profile: <https://scholar.google.com/citations?user=z69iNcUAAAAJ&hl=fr>

Web link to researchgate profile: <https://www.researchgate.net/profile/A-Amouri>

❖ Scientific publications

- A. Naifar, K. Hasanirokh, **A. Amouri**, W. Hayder, «**Dielectric Matrix-Driven Nonlinear Optical Response in Cylindrical Core-Shell Quantum Dots: A Theoretical Insight**», Micro and Nanostructures, 208314, 20 August 2025 <https://doi.org/10.1016/j.micrna.2025.208314>
- A. Husainy, S. Sawant, S. Kale, **A. AMOURI**, and H. Pathan, «**Nano-Enhanced Phase Change Materials: A Novel Approach to Sustainable Refrigeration and Thermal Energy Storage**», Journal of ES General, (2025). <https://doi.org/10.30919/esg1408>
- D.K. CHUDASAMA, V.G. SHRIMALI, Ajay VAISHNANI, C.M. PANCHASARA, Nisarg RAVAL, Urvasi JAMBUKIYA, **A. AMOURI**, Davit DHRUV, A.D. JOSHI, P.S. SOLANKI, N.A. SHAH, D.D. PANDYA, «**Investigation on structural, optical and electrical properties of BiFeO₃:ZnO nano-micro particles-matrix composite**», Journal of Alloys and Compounds 960 (2023) 170771-1-10. **(Q1, IF = 6.371)**
- N. OTHMANI, **A. AMOURI**, F. BENABDALLAH, Z. SASSI, L. SEVEYRAT, L. LEBRUN, V. PERRIN and H. KHEMAKHEM
«**Effect of Bismuth doping on structural and electrical properties of 0.9(BaZr_{0.2}Ti_{0.8}O₃)–0.1(Ba_{0.7}Ca_{0.3}TiO₃) ceramic**», Ceramics International, (2020), 1-26. **(Q1, IF = 4.527)**
- **A. AMOURI**, I. KRIAA, N. ABDELMOULA, H. EL-KEBIR, H. KHEMAKHEM
«**Magnetic, magnetocaloric and critical behavior investigations of 0.8BiFeO₃-0.2BaTi_{0.95}(Yb_{0.5}Nb_{0.5})_{0.05}O₃ multiferroic ceramic**», Journal of Alloys and Compound, 834, (2020), 155214-1-14. **(Q1, IF = 5.316)**
- **A. AMOURI**, M. A. WEDERNI, N. ABDELMOULA, H. KHEMAKHEM
«**Enhanced multiferroic properties in Bi_(1-x)Y_{2x/3}[Ti_{0.95}(Yb_{0.5}Nb_{0.5})_{0.05}]_xFe_(1-x)O₃ ceramics**», Journal of Alloys and Compounds, 794, (2019), 443-454. **(Q1, IF = 5.316)**
- **A. AMOURI**, S. AYDI, N. ABDELMOULA, H. DAMMAK, H. KHEMAKHEM
«**Evidence of magnetoelectric coupling in 0.9BiFeO₃-0.1Ba[Ti_{0.95}(Yb_{0.5}Nb_{0.5})_{0.05}]O₃ ceramic**», Journal of Alloys and Compounds 739, (2018), 1065-1079. **(Q1, IF = 5.316)**
- S. AYDI, **A. AMOURI**, S. CHKOUNDALI, A. AYDI
«**Lead-free ferroelectric Na_{1-x}Sr_x(Sn_{0.25}Ti_{0.75})_xNb_{1-x}O₃ system (0.1 ≤ x ≤ 0.4) XRD, Dielectric, and Raman properties**», Ceramics International 43(15), (2017), 12179-12185. **(Q1, IF = 4.527)**
- **A. AMOURI**, H. ABDELKEFI, N. ABDELMOULA, H. KHEMAKHEM
«**Phase transition behavior, ferroelectric and vibrational properties of (Na_{0.5}Bi_{0.5})_{1-x}Ba_xTi_{1-x}(Fe_{0.5}Nb_{0.5})_xO₃ ceramics**», Journal of Materials Science 52 (7), (2016), 1-17. **(Q1, IF = 4.220)**
- **A. AMOURI**, N. ABDELMOULA, H. KHEMAKHEM
«**Improved multiferroic properties in (1-x)BiFeO₃-xBaTi_{0.95}(Yb_{0.5}Nb_{0.5})_{0.05}O₃ system (0 ≤ x ≤ 0.3)**», Journal of Magnetism and Magnetic Materials, 417, (2016), 302-312. **(Q2, IF = 2.993)**
- **A. AMOURI**, N. ABDELMOULA, H. KHEMAKHEM
«**Structural, dielectric and vibrational properties Ba_(1-x)Bi_x[Ti_{0.95}(Yb_{0.5}Nb_{0.5})_{0.05}]_(1-x)Fe_xO₃ ceramics (0 ≤ x ≤ 0.2)**», Ceramics International 41, (2015), 10425–10433. **(Q1, IF = 4.527)**
- **A. AMOURI**, J. Rouquette, B. Hehlen, J. L. Sauvajol, H. Khemakhem
«**Physical properties of new, lead free (Na_{0.5}Bi_{0.5})_(1-x)Ba_xTi_(1-x)(Fe_{0.5}Nb_{0.5})_xO₃ ceramics**», Ceramics International 40 (2014) 8219–8227. **(Q1, IF = 4.527)**
- B. Hehlen, **A. AMOURI**, A. AlZein and H. Khemakhem
«**Hyper Raman and Raman scattering from the polar modes of PbMg_{1/3}Nb_{2/3}O₃**», J. Phys.: Condens. Matter 26 (2014) 015401. **(Q1, IF = 2.333)**

❖ Communications in international conferences

- **Communications as speaker**: Twelve international meeting Participants
- **Oral communications**: Thirteen Oral international meeting Participants
- **Poster Communications**: Nine Poster international meeting Participants

RESEARCH PROJECTS

- ❖ Leader of the National Research project entitled: "[Optimization of Electrode-Electrolyte Reactivity in Alkaline Electrolyzers for efficient production of Green Hydrogen](#)" within the framework of the **PEJC2024** Young Researchers Incentive Program for the period of 2024-2026.
- ❖ Member of the National Research project entitled: " [Ingénierie théorique des boîtes quantiques pour les technologies optoélectroniques et photovoltaïques émergentes avec implication de la science des données.](#)" within the framework of the **PEJC2025** Young Researchers Incentive Program for the period of 2025-2027.
- ❖ Co Principal Investigator of the international Research project The Tunisia/India Agreement on Science And Technology Cooperation entitled: " [Advanced Modulation and Experimental Investigation of Magnetoelectric Doped Bismuth Ferrite and Composite Nanomaterials for Eco-Innovative Energy Storage and Optoelectronic Applications.](#)" (submitted)

SUPERVISION AFTER BEING ASSISTANT PROFESSOR

- ❖ Mobidoc Green post doc under the project **PEJC2024** : Post doc Wafa Hayder

RESEARCH INTEREST

- Biomaterials
- Properties of multifunctional materials (Multiferroic, Magnetoelectric coupling, Magnetocaloric effect)
- Properties of dielectric materials
- Properties of ferroelectric materials
- Properties of piezoelectric materials
- Properties of magnetic materials
- Optical properties of ferroelectric materials
- Properties of new photovoltaic materials
- Optimization of different industrial models operating for photovoltaic cells