



Amira AMOURI

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.

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

PROFESSIONAL EXPERIENCE

❖ University education

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 Gabes, University of Gabes, Gabes, tunisia.

2017-2018 and 2018-2019: Assistant teacher of physics at Higher Institute of Arts and Crafts of Tataouine, University of Gabes University of Gabes, 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 Gabes, Tataouine-Tunisia.

2014-2015 and 2015-2016: Assistant teacher of physics at the Faculty of Sciences of Sfax, University of Sfax, Sfax, Tunisia.

❖ Other professional experiences

2019-2020: 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 "

Tasks performed

- Participate in group work: my contribution allowed us to publish 3 articles in International scientific journals with impact factors between 2 and 4.
- Help P.H.D. students in both conducting experiments and analyzing results.
- Drafting of two interim progress reports and a final report.

PROFILE

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Family name: AMOURI

CONTACT

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ADRESSE

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AWARDS RECIVED

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

ACTIVITIES OF COLLECTIVE INTEREST

❖ International Peer Reviewers:

International Research Journal of Science, Technology,
Education, and Management (IRJSTEM)
<https://irjstem.com/>

❖ Reviewer in some journals:

Physica B: Condensed Matter
Journal of Materials Science
Journal of Alloys and Compounds
Phase Transitions

❖ Reviewer in international conferences:

The 4th international conference of sciences and
technology from 15 to 16 september 2021 organized
by Sebha university, LIBYA

❖ Editor board:

of the International Journal of BioSciences and
Technology **IJBST** group of Journals
<http://borad.ijbst.org/>

❖ Membership of scientific committees:

- The 4th International African Conference on current studies of science, technology and social sciences from 20 to 22 October 2021 organized by BANI WALID university, LIBYA.
- The 2nd International conference "Industry 4.0 & Artificial Intelligence" **ICIAI 2021** 29-30 May 2021, Sousse-TUNISIA, Online.

❖ Participation in the organization of scientific events

- 2nd International Scientific Conference of Engineering Sciences **ISCES2020**, 4th Scientific Conference of Engineering Sciences, 16-17 December 2020, Diyala, IRAQ: **Chair Session**.
- The 4th international conference of sciences and technology, 15-16 September 2021, Sebha, LIBYA: **Chair Session**.
- The International Conference on materials science and its technological advancements **ICMSTA -2021**, 20-22 September 2021, Vellore, INDE: **Chair Session**.
- The multidisciplinary virtual international conference entitled " Breakthroughto Excellence ", 6- 8 October 2021, Pune, INDIA: **Co- Chair Session**.
- The 4th International African Conference on current studies of science, technology and social sciences, 20-22 October 2021, Bani Waleed, LIBYA.

❖ Trainer

- educational trainer
- Trainer in Full-proof X-ray diffraction, Raman and Hyper-Raman spectroscopy analysis programs .

❖ Associative life

- Sfax regional coordinator of the School Solidarity Association.
- Active member of the association for the development of research and innovation "ADRI"

- Writing of at least one scientific article.
- Contribution to the Doctoral activities and events:

Administrative tasks: From 09/11/2020 to 02/10/2020: Statistics of the results of the students of different sessions for the 2019-2020 academic year within the science faculty of Sfax and filling of this questionnaire at the site of the Ministry of higher education and research.

2015-2019: Post-doc (voluntary) in Laboratory of Multifunctional Materials and Applications (LaMMA), Faculty of Science of Sfax (FSS), University of Sfax, Sfax, Tunisia.

❖ Secondary education

2008-2009, 2012-2013, 2015-2016, 2016-2017, 2020-2021: Secondary school teacher in physical sciences, Republic of Tunisia Ministry of Education and Training, Sfax, Tunisia.

SCIENTIFIC PRODUCTIONS

H-Index: **6**; RG-Score: **16.93**

Web link to Googel 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

- A₁. 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.
- A₂. **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.
- A₃. **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.
- A₄. **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.
- A₅. **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_x(Fe_{0.5}Nb_{0.5})_xO₃ ceramics** », Journal of Materials Science 52(7), (2016), 1-17.
- A₆. 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.
- A₇. **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.
- A₈. **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.
- A₉. **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.
- A₁₀. 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.

❖ Communications in international conferences

- ❖ Oral communications: Thirteen Oral international meeting Participants
- ❖ Poster Communications: Six Poster international meeting Participants

❖ Computer Skills

- Operating system: Windows, Unix.
- Languages: Python, Java.
- Software: FullProf, X'pert high, Labview, Origine, Fityk, ZView, ImageJ, Winiso 1.0, fulham, ...

❖ Languages

- English and French : well read, speak well, well written
- Arabic: native language.

SUPERVISION

2019-2020:

- **Subject # 1:** Professional Master in Materials Physics and CND,
Title of Master: "**Elaboration et Caractérisation du kaolin Libyen**". This work was performed at the Faculty of Sciences of Sfax in partnership with the company CARTHAGO CERAMIC carried out by the student: Siwar ABADLIA.
- **Subject # 2:** Physics Research Masters,
Title of Master: "**Pérovskite piézoélectrique pour la réalisation des détecteurs**", This work was performed at the Faculty of Sciences of Sfax in the Multifunctional Materials and Applications Laboratory (LaMMA), Faculty of Sciences of Sfax (FSS), University of Sfax, carried out by the student: Fathi OMRI.
- **Subject # 3 et Subject # 4:** Participation in the scientific supervision of physics P.H.D of both students: Mr. Salem BELLAAJ and Miss Ahlem JLASSI.

ACQUIRED SCIENTIFIC SKILLS

❖ Research experiences

- Monocrystal materials (hyper Raman spectroscopy analysis)
- Synthesis and growth:** Solid state reaction method (Ceramics) and auto-combustion process (Nanopowders).
- Ceramic powder materials (Dielectric materials, ferroelectric materials, magnetic materials)
- Structural analysis (Rietveld refinement)
- Microstructure analysis
- Dielectric analysis, Electric properties of ceramic
- Magnetic analysis (Magnetic hysteresis (M-H) loop, ⁵⁷Fe Mössbauer analysis)
- Optical analysis (Photoluminescence (PL) and UV visible spectroscopy)
- Multiferroic ceramics
- Multiferroic Nanopowders

❖ Characterization Techniques

- Structural characterization (XRD) (Rietveld refinement, Full-prof)
- Electron microscopy (SEM; TEM)
- Microanalysis energy dispersive X-ray (EDX)
- Spectroscopy (IR, Raman, hyper Raman)
- Dielectric (Dielectric constant, tan δ , Nyquist plots ($-Z''$ vs. Z'), Modulus analysis, Conduction mechanism both ac and dc)
- Ferroelectric hysteresis (P-E) loop
- Magnetic hysteresis (M-H) loop
- ⁵⁷Fe Mössbauer spectroscopy
- X-ray photoelectron (XPS)
- Photoluminescence spectroscopy (PL)
- UV visible spectroscopy

❖ Research Interest

- 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

Declaration

I hereby assure that all the above-furnished details are true to the best of my knowledge.

Tunisia 03/11/2021

A.AMOURI

