

**Specialisation:**

- Materials and nanomaterials.
- Solar energy.
- PV and CSP Systems.
- Water-Energy-Agriculture-Nexus.,
- Atmospheric water harvesting,
- Water Dessalination

**Current Position:**

- Professor of Physics and Renewable Energies, Faculty of Science, Ibn Zohr University.

**Educational & Professional Achievements:**

- Doctorat ès Sciences Physique, University Ibn ZOHR, 1995.
- Doctorat (Ph.D), University de Caen, France, 1988.
- DEA, SOrbone University (Paris VII), France, 1985.
- Licence ès Sciences Physique, University Mohamed V, Rabat, Morocco, 1984.



---

**PROFESSIONAL CAREER:**

1988-present: Professor at Faculty of Science, Ibn Zohr University.

2006-2021: Director of Laboratory of Materials and Renewable Energies

2008-2014: Coordinator of Professional bachelor, Renewable energies and sustainable development

Expert for the Moroccan National Centre of Technic and scientific Research,

Expert For Centre Marocain de l'innovation,

Expert For Académie Hassan II Sciences et Techniques

Expert For DLR,

Expert for UM6P (APRD project, Talent Moonshot, ... )

Coordinator and member of numerous National and International research projects:

- Inno EspaMaroc Energy 2021
- Innotherm1,
- InnoPV1,
- PPR,
- CNRST/CNRS (France)
- CNRST/CNR(Italy)
- PHC Toubkal,
- Moroccan/German joint project
- CNRST/FCT (Portugal),
- Moroccan/Canarian joint project,
- Action Intégrée Maroc/Tunisie...

Supervisor of 20 doctorate Student dissertations

Guest Editor Materials Today proceedings and J. Phys. III.

Referee for Renewed Scientific Journals

Visting Professor: France, Germany, Mauritania, Finland, South Korea

Member of organization and scientific committees of numerous international conferences

## SOME SELECTED RECENT PUBLICATIONS (2020-2024):



1. M. Taoufiq, A. Soussi, A. Elfanaoui, A. Aithssi, S.Baoubih, A. Ihlal, and K. Bouabid, DFT theoretical and experimental investigations of the effect of Cu doping within SILAR deposited ZnS , *Journal of optical materials*, 147 (2024), 114607
2. Enhancing electrochemical and photoelectrochemical degradation of organic dyes under visible irradiation with a novel Cu<sub>2</sub>O/BaHPO<sub>4</sub>-based photoelectrode, Ahdour, A., Amaterz, E., Taoufyq, A., Ihlal, A., Benlhachemi, A., *Journal of Alloys and Compounds*, 960 (2023), 170822
3. Experimental investigation on rock thermal properties under the influence of temperature, Tiskatine, R., Bougdour, N., Idoum, A., ...Ihlal, A., Aharoune, A., *Thermochimica Acta*, 720 (2023), 179424
4. M. Ouafi.; L. Atourki, D. Barrit, R. Fathallah, H. Ouaddari, L. Laanab, A. Ihlal, Structural and Optical Characterization of MAPbI<sub>3</sub> (X=I, Br and Cl) powder as precursor materials for perovskite based optoelectronic devices, *Journal of Chemistry and Physics*, 301 (2023), 127600
5. L. Boulkaddat, A. Soussi, H. Najih, K. Abouabassi, A. Aithssi, N. Labchir, A. Elfanaoui, R. Markazi, K. Bouabid, A. Ihlal, Experimental and theoretical study of electrodeposited CuInS<sub>2</sub> thin films for solar cell applications, *Physica B: Condensed Matter*, 671 (2023), 415374
6. A.AitHssi, A. Soussi, N.Labchir, M.Taoufiq, H.Najih, A.Elfanaoui, A.Ihlal, & K.Bouabid A DFT theoretical and experimental study of the effect of indium doping within electrochemical deposited ZnO, *Vacuum*, 217 (2023), 112503
7. A.Soussi, R.Haounati, A.Aithssi, M.Taoufiq, A.Asbayou, A.Elfanaoui, R.Markazi, A.Ihlal and K.Bouabid, First Principle Study of Structural, Electronic, Optical Properties of Co-Doped ZnO, *J. Compo. Sci.*, 7 (2023), 511
8. A.Soussi, A. Elfanaoui, A. Aithssi, M.Taoufiq, A. Asbayou, L. Boulkaddat, N. Labchir, R. Markazi, A. Ihlal and K. Bouabid, Morphological, structural, electronic and optical properties of deposited 4d-Mo doped TiO<sub>2</sub> thin films compared to first-principles calculations, *Materials Today Communications*, 36 (2023), 106520
9. A.Soussi, A. Aithssi, L.Boulkaddat, N.Labchir, A.Asbayou, A.Elfanaoui, R.Markazi, A. Ihlal, K. Bouabid, and A. Taleb, Structural, optical and electronic properties of La-doped ZnO thinfilms: experimental study and DFT calculations, *Physica B : Condensed Matter*, 643 (2022), 414181
10. K.Abouabassi, A.Sala, L.Atourki, A.Soussi, A.Elfanaoui, H.Kirou, A.AitHssi, K.Bouabid, E.Gilioli, A.Ihlal, Electrodeposited CuSbSe<sub>2</sub> thin films based solar cells on various substrates, *Journal of Nanoparticles Research*, 24 (2022).
11. A.Aithssi, E.Amaterz, N.Labchir, A.Soussi, A.Elfanaoui, A.Benlhachemi, A.Ihlal, and K.Bouabid, Electrodeposition of nanostructured cuprous oxide on various substrates and their electrochemical and photoelectrochemical properties, *Journal Materials Sci: Mateials in Electronics*, 33 ((2022), 15791
12. Self-biased coplanar circulator based on electrochemically grown ferrimagnetic nanowires, N. Labchir, A.Hannour, A. Ait Hssi, D.Vincent, and A.Ihlal, *Journal of Magnetism and Magnetic Materials*, Volume 547, 2022, 168945
13. Annealing effect on one step electrodeposited CuSbSe<sub>2</sub> thin films, Khadija Abouabassi, Lahoucine Atourki, Andrea Sala, Mouaad Ouafi, Lahcen Boulkaddat, Abderrahim Ait hssi, Nabil Labchir, Khalid Bouabid, Abdelmajid Al-maggoussi, Edmondo Gilioli and Ahmed Ihlal, *Coatings*, 2022, 12, 75
14. A.Soussi, A.Aithssi, L.Boulkaddat, M.Boujnah, K.Abouabassi, R.Haounati, A.Asbayou, A.Elfanaoui, R.Markazi, A.Ihlal, K.Bouabid, and N.ElBiaze. First principle study of electronic, optical and electrical properties of Mo doped TiO<sub>2</sub>, *Computational Condensed Matter*, 29 (2021), e00606
15. Controlled electrochemical growth and magnetic properties of CoFe<sub>2</sub>O<sub>4</sub> nanowires with high internal magnetic field, N. Labchir, Hannour A., Ait Hssi A., Vincent D., Ganster P., Ihlal A., *Journal of Alloys and Compounds* 868 (2021), 159196
16. Effect of doping on the phase stability and photophysical properties of CsPbI<sub>2</sub>Br perovskite thin films, Atourki L., Bernabe M., Makha M., Bouabid K., Regragui M., Ihlal A., Abd-Lefdil M., Mollar M., *RSC advances*, 11(2021), 1440-1449
17. Impact of Li doping on the photophysical properties of perovskite absorber layer FAPbI<sub>3</sub>, Atourki L., Ouafi M., Makha M., Mari B., Regragui M., Ihlal A., Abd-lefdil M., Mollar M., *Journal of Alloys and compounds*, 850 (2021), 156696
18. Enhanced magnetic properties of magneto-electrodeposited Co and Ni nanowires, Labchir N., Hannour A., Ait hssi A., Vincent D., Ihlal A., Sajieddine M., *Current Applied Physics*, 25 (2021), 33-40
19. Electronic and Optical Properties of TiO<sub>2</sub> Thin Films: Combined Experimental and Theoretical Study, Soussi A., Ait Hssi A., Boujnah M., Boulkaddat L., Abouabassi K., Asbayou A., Elfanaoui A., Markazi R., Ihlal A., Bouabid K., *Journal of Electronic Materials*, (2021).

20. Investigations on the Growth Mechanism of Nanostructured ZnO: Shedding Light on the Effect of Al<sup>3+</sup> Doping, Battas M., Atourki L., Bouabid K., Ihlal A., Abd-Lefdil M., Regragui M., Surface Engineering and Applied Electrochemistry, 2021, 57(1)
21. N.Labchir, A.Hannour, A.AitHssi,D.Vincent, A.Soussi, and A. Ihlal, Facile galvanostatic electrodeposition of CoFe<sub>2</sub>O<sub>4</sub> nanosheets from sulfate medium, Journal Materials Sci: Mateials in Electronics, 32 (2021), 27987
22. Microwave response of coplanar waveguide based on electrodeposited CoFe<sub>2</sub>O<sub>4</sub> nanowires, N. Labchir, A. Hannour, A. Ait Hssi, D. Vincent, J.P. Chatelon, D. Dufeu, A. Ihlal, M. Sajieddine, Journal of Magnetism and Magnetic Materials, 510 (2020), 166952.
23. Synthesis and characterization of CoFe<sub>2</sub>O<sub>4</sub> thin films for solar absorber application, N. Labchir, A. Hannour, A. Ait Hssi, D. Vincent, K. Abouabassi, A. Ihlal, M. Sajieddine, Materials Science in Semiconductor Processing, 111 (2020); 104992.
24. Electrodeposition of oriented ZnO nanorods by two-steps potentiostatic electrolysis: Effect of seed layer time, A. Ait hssi, L. Atourki, N. Labchir, M. Ouafi, K. Abouabassi, A. Elfanaoui, A. Ihlal and K. Bouabid, Solid State Sciences, 104 (2020), 106207.
25. Highly Efficient Nanostructured CoFe<sub>2</sub>O<sub>4</sub> Thin Film Electrodes for Electrochemical Degradation of rhodamine B, N. Labchir, A. Hannour, D. Vincent, A. Ihlal, M. Sajieddine, Water Environment Research. 92 (2020), 759-565.
26. High-quality Cu<sub>2</sub>O thin films via electrochemical synthesis under a variable applied potential, A. Ait hssi, L. Atourki, N. Labchir, M. Ouafi, K. Abouabassi, A. Elfanaoui, A. Ihlal, S. Benmokhtar, and K. Bouabid, Journal of Material Science: Materials in Electronics, 31 (2020), 4237-4244.
27. Tailoring the Optical Bandgap of Pulse Electrodeposited CoFe<sub>2</sub>O<sub>4</sub> Thin Films, N. Labchir, A. Hannour, A. Ait Hssi, D. Vincent, M. Ouafi, K. Abouabassi, A. Ihlal, M. Sajieddine, Journal of Electronic Materials, 49 (2020), 2242-2248.
28. Decentralized and Communicating Management of a Hydrogen-Based Microgrid, L. Elmahni, L. Bouhouch, A. Ihlal, B. Boukhris, Jour. of Adv. Research in Dynamical & Control Systems, Vol. 12, 03-Special Issue, 2020,

## PUBLICATION RECORDS (SCOPUS):

# Ihlal, A.

 [Université Ibn Zohr, Agadir, Morocco](#)

 [8711414300](#) 

 [Connect to ORCID](#)

**1,769**

Citations by **1,541 documents**

**134**

Documents

**22**

*h-index* [View h-graph](#)

[View all metrics >](#)



Set alert

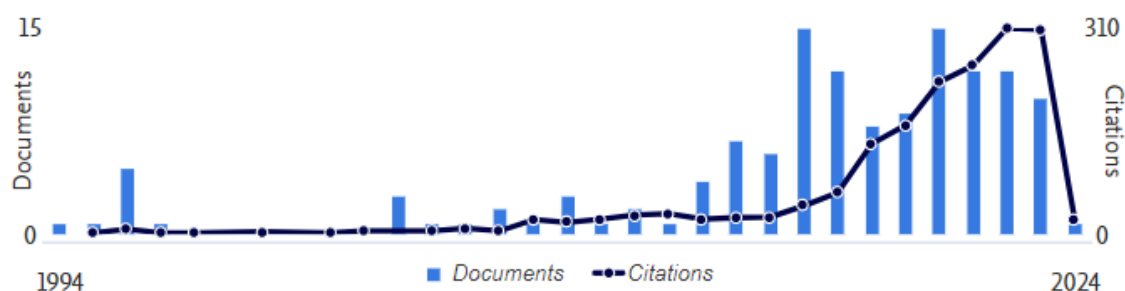


Edit profile



More

### Document & citation trends



**PUBLICATION RECORDS (GoogleScholar):**

