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**Dikra BOURAS, Ph.D.**

**Senior Lecturer (MCB) | Materials Science & Semiconductor Physics**

📍 *Cité Maarouf Sebti Berriche, Wilaya de Oum El Bouaghi, Algérie*

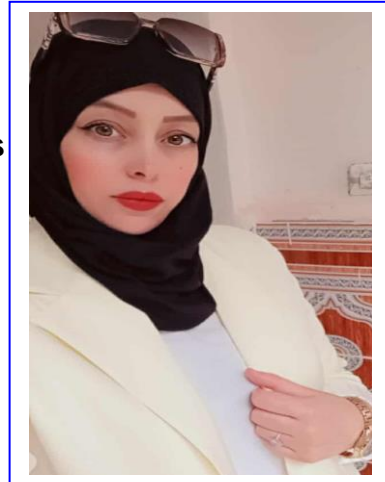
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🔗 [ResearchGate Profile](#) | [Google Scholar Profile](#)

<https://www.researchgate.net/profile/Dikra-Bouras/research>

<https://scholar.google.com/citations?user=6wX9HK8AAAAJ&hl=ar>



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### **Professional Summary**

A highly motivated and productive Senior Lecturer and Researcher with a Ph.D. in Semiconductor and Materials Physics. Extensive expertise in the development, characterization, and application of advanced ceramics, thin films, and nanocomposites for photocatalysis, sensing, filtration, and antibacterial applications. Proven track record of high-impact publications, successful project supervision, and hands-on experience with advanced spectroscopic techniques. Seeking to contribute to cutting-edge research and academic excellence.

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### **Education**

- **Ph.D. in Semiconductor and Materials Physics** (2014 – 2018)  
*University of Oum El Bouaghi, Algeria*  
*Thesis: "Development and characterization of mullite and zircon ceramics and their applications to photocatalysis"*
- **Master's Degree in Materials Science** (2012 – 2013)  
*University of Oum El Bouaghi, Algeria*  
*Thesis: "Dynamics in Semiconductor Quantum Wells"*

- **Bachelor's Degree in Materials Physics** (2009 – 2011)  
*University of Oum El Bouaghi, Algeria*

- **Scientific Bacallaureate with Honors** (2008)

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### Academic Appointments

- **Assistant Professor (MCB)** | University of Souk-Ahras, Algeria (Sep 2023 – Present)
- **Temporary Teacher** | University of Oum El Bouaghi, Algeria (2014 – 2023)  
*Taught practical modules (TP) and tutorials (TD) in General Physics, Electricity, Mechanics, Optics, and Biophysics across multiple faculties and institutes.*
- **Temporary Teacher in Secondary Education** (2013-2014, 2019, 2020)

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### Research Experience & Skills

- **Research Internships** | University of Angers, France  
\*Three intensive research stays (Nov-Dec 2016, Nov-Dec 2017, Apr 2018)\*
- **Project Membership** | Member of the PHC TASSILI 2019 international project.
- **Technical Skills:**
  - **Materials Synthesis:** Sol-gel, Co-precipitation, Spin-coating, Autoclave, Powder Metallurgy.
  - **Characterization Techniques:**
    - Qualified Operator: RAMAN Spectroscopy (Bruker RAM II), FTIR Spectroscopy (Bruker 700), UV-Visible Spectroscopy (JASCO V-630).
  - **Research Areas:** Photocatalysis, Ceramic Engineering, Thin Films, Nanocomposites, Antibacterial Materials, Gas Sensors, Wastewater Treatment, Optoelectronics.

## Detailed List of Scientific Publications

### A. First-Author/Co-First Author Publications

1. **Bouras, D.**, Fellah, M., Salhi, B., Ankah, N., & Merah, N. (2025). Tailoring porosity and antibacterial activity in MgO/ZrO<sub>2</sub>-modified kaolin ceramics for use in wastewater filtration systems. *Journal of Science: Advanced Materials and Devices*, 100974. **DOI:** <https://doi.org/10.1016/j.jsamd.2025.100974>
2. **Bouras, D.**, Fellah, M., Mokrani, M., Barille, R., Scott, H. S., Guesmi, A., & Khezami, L. (2025). Structural and Antibacterial behaviors of Tin Dioxide Thin Films on Copper Substrates. *Journal of Science: Advanced Materials and Devices*, 100943. **DOI:** <https://doi.org/10.1016/j.jsamd.2025.100943>
3. **Bouras, D.**, Fellah, M., Mohammed, D. Z., Barille, R., Obrosof, A., El-Hiti, G. A., ... & Khezami, L. (2025). Enhanced CO<sub>2</sub> sensing properties of Fe/Al-Doped SnO<sub>2</sub> thin films: a comprehensive study of structural, optical, and electrical characteristics. *Journal of Alloys and Compounds*, 181387. **DOI:** <https://doi.org/10.1016/j.jallcom.2025.181387>
4. **Bouras, D.**, Fellah, M., Barille, R., El-Hiti, G. A., Guesmi, A., & Khezami, L. (2025). Enhancing the mechanical and physical properties of DD3 ceramics with zirconium oxide for industrial and technological applications. *Surfaces and Interfaces*, 106841. **DOI:** <https://doi.org/10.1016/j.surfin.2025.106841>
5. **Bouras, D.**, Fellah, M., Barille, R., Grigorian, S., & El-Hiti, G. A. (2025). Innovative ceramic solutions: Boosting antibacterial power of DD<sub>30.85</sub>Mg<sub>0.15</sub>O for environmental applications. *Inorganic Chemistry Communications*, 114046. **DOI:** <https://doi.org/10.1016/j.inoche.2025.114046>
6. **Bouras, D.**, Fellah, M., Mohammed, D. Z., Aleksei, O., & El-Hiti, G. A. (2025). Enhancing microstructural, thermal, and functional properties of kaolinite ceramics through magnesium oxide doping. *Ceramics International*. **DOI:** <https://doi.org/10.1016/j.ceramint.2025.06.039>

7. **Bouras, D.**, Fellah, M., Barille, R., Zerouali, M., Hambli, N., & El-Hiti, G. A. (2025). Comparative study of zirconium-zinc oxide thin films on ceramic and glass substrates: Structural, optical, and photocatalytic properties. *Inorganic Chemistry Communications*, 171, 113561. DOI: <https://doi.org/10.1016/j.inoche.2024.113561>
8. **Bouras, D.**, Fellah, M., Barille, R., Sellam, M., Zerouali, M., Merah, N., & El-Hiti, G. A. (2025). Development and Characterization of Microporous Al–Si–Zr Alloys with Enhanced Porosity for Filtration Applications. In *TMS Annual Meeting & Exhibition* (pp. 395-402). Springer. DOI: [https://doi.org/10.1007/978-3-031-80676-6\\_53](https://doi.org/10.1007/978-3-031-80676-6_53)
9. **Bouras, D.**, Fellah, M., Barille, R., Zerouali, M., Hambli, N., & Merah, N. (2025). Structural Comparative Study of Zirconium-Zinc Oxide Thin Films on Ceramic and Glass Substrates. In *TMS Annual Meeting & Exhibition* (pp. 159-170). Springer. DOI: [https://doi.org/10.1007/978-3-031-80664-3\\_14](https://doi.org/10.1007/978-3-031-80664-3_14)
10. **Bouras, D.**, Khezami, L., Barille, R., Merah, N., Salhi, B., El-Hiti, G. A., ... & Fellah, M. (2025). Preparation Methods and Photocatalytic Performance of Kaolin-Based Ceramic Composites with Selected Metal Oxides (ZnO, CuO, MgO): A Comparative Review. *Inorganics*, 13(5), 162. DOI: <https://doi.org/10.3390/inorganics13050162>
11. **Bouras, D.**, Fellah, M., Barille, R., Weiß, S., Abdul Samad, M., Alburaikan, A., ... & Obrosof, A. (2024). Improvement of photocatalytic performance and sensitive ultraviolet photodetectors using AC-ZnO/ZC-Ag<sub>2</sub>O/AZ-CuO multilayers nanocomposite prepared by spin coating method. *Journal of Science: Advanced Materials and Devices*, 9, 100642. DOI: <https://doi.org/10.1016/j.jsamd.2023.100642>
12. **Bouras, D.**, Fellah, M., Barillé, R., Obrosof, A., & El-Hiti, G. A. (2024). Production of novel Zr-Mg nanoceramics based on kaolinite clay with strong antibacterial activity. *Ceramics International*. DOI: <https://doi.org/10.1016/j.ceramint.2024.05.091>
13. **Bouras, D.**, Fellah, M., Habeeb, M. A., Aouar, L., Barille, R., & El-Hiti, G. A. (2024). Structural and antibacterial activity of developed nano-bioceramic DD3/ZrO<sub>2</sub>/ZnO/CuO powders. *Journal of the Korean Ceramic Society*. DOI: <https://doi.org/10.1007/s43207-024-00398-6>

14. **Bouras, D.**, Fellah, M., Barille, R., Obrosoy, A., Ikbali, A., Avramov, P. V., & El-Hiti, G. A. (2024). Multiple layers, porous surface, and their role in increasing the efficiency of photocatalytic coating on (DD3, DD3+ZrO<sub>2</sub>) ceramics and glass. *Ceramics International*, 50(21), 43854-43873. **DOI:** <https://doi.org/10.1016/j.ceramint.2024.08.239>
15. **Bouras, D.**, Fellah, M., Barille, R., Abdul Samad, M., Rasheed, M., & Alreshidi, M. A. (2024). Properties of MZO/ceramic and MZO/glass thin layers based on the substrate's quality. *Optical and Quantum Electronics*, 56, 104. **DOI:** <https://doi.org/10.1007/s11082-023-05778-6>
16. **Bouras, D.**, Fellah, M., Mecif, A., Barillé, R., Obrosoy, A., & Rasheed, M. (2023). High photocatalytic capacity of porous ceramic-based powder doped with MgO. *Journal of the Korean Ceramic Society*. **DOI:** <https://doi.org/10.1007/s43207-022-00254-5>
17. **Bouras, D.**, & Rasheed, M. (2022). Comparison between CrZO and AlZO thin layers and the effect of doping on the lattice properties of zinc oxide. *Optical and Quantum Electronics*, 54, 824. **DOI:** <https://doi.org/10.1007/s11082-022-04161-1>
18. **Bouras, D.**, Mecif, A., Barille, R., Harabi, A., & Zaabat, M. (2020). Porosity properties of porous ceramic substrates added with zinc and magnesium material. *Ceramics International*, 46(11), 20838-20846. **DOI:** <https://doi.org/10.1016/j.ceramint.2020.05.114>
19. **Bouras, D.**, Rasheed, M., Barille, R., & Aldaraji, M. N. (2022). Efficiency of adding DD3+(Li/Mg) composite to plants and their fibers during the process of filtering solutions of toxic organic dyes. *Optical Materials*, 131, 112725. **DOI:** <https://doi.org/10.1016/j.optmat.2022.112725>
20. **Bouras, D.**, Mecif, A., Harabi, A., Barillé, R., Mahdjoub, A., & Zaabat, M. (2021). Economic and ultrafast photocatalytic degradation of orange II using ceramic powders. *Catalysts*, 11(6), 733. **DOI:** <https://doi.org/10.3390/catal11060733>
21. **Bouras, D.**, Mecif, A., Mahdjoub, A., Harabi, A., Zaabat, M., & Barille, R. (2017). Photocatalytic degradation of orange II by active layers of Cu-doped ZnO deposited on porous ceramic substrates. *Journal of Ovonic Research*, 13(5), 271-281.

22. **Bouras, D.**, Mecif, A., Barille, R., Harabi, A., Rasheed, M., & Mahdjoub, A. (2018). Cu:ZnO deposited on porous ceramic substrates by a simple thermal method for photocatalytic application. *Ceramics International*, 44(17), 21546-21555. **DOI:** <https://doi.org/10.1016/j.ceramint.2018.08.218>
23. **Bouras, D.**, Barillé, R., & Mecif, A. (2021). Different Methods, Sol-Gel and Autoclave, Applied on the Ceramic Materials to Obtain Better Photocatalysis. *Journal of Environmental Analytical Chemistry*, 8, 325. **DOI:** <https://doi.org/10.37421/2380-2391.2021.8.325>

## **B. Co-Author Publications**

24. Rekkache, H., Mezrag, S., Fellah, M., **Bouras, D.**, Bechiri, L., ... & Khezami, L. (2025). Characterization of RF magnetron sputtered pure and aluminum-doped zinc oxide thin films for optoelectronic applications. *Journal of Materials Science: Materials in Electronics*, 36(16), 934. **DOI:** <https://doi.org/10.1007/s10854-025-15004-6>
25. Djebbari, N., **Bouras, D.**, & Farh, H. (2022). Effect of doping with manganese and zinc on the structural, morphological, optical and photocatalytic properties of NiO. *Applied Physics A*, 128, 861. **DOI:** <https://doi.org/10.1007/s00339-022-06002-0>
26. Zerouali, M., **Bouras, D.**, Daïra, R., ... & El-Hiti, G. A. (2025). Effect of Aluminum-Modified Copper Oxide Thin Films on Structural, Morphological, Optical, and Electrical Properties for Photocatalysis Application. *Ceramics International*, 51(1), 473-490. **DOI:** <https://doi.org/10.1016/j.ceramint.2024.11.026>
27. Zerouali, M., Daïra, R., **Bouras, D.**, Barille, R., & Boudjema, B. (2024). Structural, Morphological, Optical and Electrical Properties of CuO Nanostructures Undoped and Doped with Silver. *Acta Physica Polonica A*, 146(3), 304. **DOI:** <http://dx.doi.org/10.12693/APhysPolA.146.304>
28. Zerouali, M., **Bouras, D.**, Daïra, R., ... & El-Hiti, G. A. (2024). Effect of Zn-doped CuO thin films on structural, morphological, optical, and electrical properties for photocatalysis application. *Optical Materials*, 152, 115495. **DOI:** <https://doi.org/10.1016/j.optmat.2024.115495>

29. Sellam, M., Azizi, S., **Bouras, D.**, Fellah, M., Obrosof, A., & EL-Hiti, G. A. (2024). Degradation of rhodamine B dye under visible and solar light on zinc oxide and nickel-doped zinc oxide thin films. *Optical Materials*, 151, 115316. **DOI:** <https://doi.org/10.1016/j.optmat.2024.115316>
30. Stambouli, I., Zerouali, M., Daïra, R., **Bouras, D.**, El-Hiti, G. A., ... & Fellah, M. (2025). Enhancement of tin-doping on the structural, electrical, and optical properties of copper oxide thin films for optoelectronic applications. *Ceramics International*. **DOI:** <https://doi.org/10.1016/j.ceramint.2025.01.540>
31. Fellah, M., Hezil, N., **Bouras, D.**, ... & Khalifa, H. A. E. W. (2023). Investigating the effect of milling time on structural, mechanical and tribological properties of a nanostructured hiped alpha alumina for biomaterial applications. *Arabian Journal of Chemistry*, 16, 105112. **DOI:** <https://doi.org/10.1016/j.arabjc.2023.105112>
32. Fellah, M., Hezil, N., **Bouras, D.**, ... & Weiß, S. (2023). Structural, mechanical and tribological performance of a nano structured biomaterial Co-Cr-Mo alloy synthesized via mechanical alloying. *Journal of Materials Research and Technology*, 25, 2152-2165. **DOI:** <https://doi.org/10.1016/j.jmrt.2023.06.031>
33. Zerouali, M., Daïra, R., **Bouras, D.**, Boudjema, B., & Barillé, R. (2023). Photocatalytic Degradation of Orange II by Active Layers of Ag-Doped CuO Deposited by Spin-Coating Method. *Journal of Nano Research*, Vol. 80, pp 1-19.
34. Bouacherine, S., Bouranene, S., Djaber, S., ... & **Bouras, D.** (2025). Sustainable Dye Removal Using PANI-Salt Functionalized Potato Peels in a Fixed-Bed Column: Optimization and Modeling. *Journal of the Indian Chemical Society*, 102091. **DOI:** <https://doi.org/10.1016/j.jics.2025.102091>
35. Fellah, M., Hezil, N., **Bouras, D.**, ... & El-Hiti, G. A. (2024). Microstructural and photocatalytic properties of nanostructured near- $\beta$  Ti-Nb-Zr alloy for total hip prosthesis use. *Kuwait Journal of Science*. **DOI:** <https://doi.org/10.1016/j.kjs.2024.100276>
36. Farah, M., Fellah, M., **Bouras, D.**, ... & Khalifa, H. A. E. W. (2023). Unraveling the role of sintering temperature on physical, structural and tribological characteristics of ball

milled Co<sub>28</sub>Cr<sub>6</sub>Mo biomaterial based alloy. *Journal of Engineering Research*. DOI: <https://doi.org/10.1016/j.jer.2023.10.040>

37. Zerouali, M., Daïra, R., Boudjema, B., Barillé, R., & Bouras, D. (2023). Effect thickness of copper oxide thin films on structural, optical, electrical, and hydrophobic properties for use in self-cleaning technique. *Digest Journal of Nanomaterials and Biostructures*, 18(4), 1371-1384.
38. Hamadi, F., Fellah, M., Hezil, N., Bouras, D., ... & Yadav, K. K. (2024). Effect of milling time on structural, physical and tribological behavior of a newly developed Ti-Nb-Zr alloy for biomedical applications. *Advanced Powder Technology*, 35, 104306. DOI: <https://doi.org/10.1016/j.appt.2023.104306>
39. Assoudi, N., Chaabani, A., Rasheed, M., ... & Bouras, D. (2022). Comparative examination of the physical parameters of the sol gel produced compounds La<sub>0.5</sub>Ag<sub>0.1</sub>Ca<sub>0.4</sub>MnO<sub>3</sub> and La<sub>0.6</sub>Ca<sub>0.3</sub>Ag<sub>0.1</sub>MnO<sub>3</sub>. *Optical and Quantum Electronics*, 54, 556. DOI: <https://doi.org/10.1007/s11082-022-03927-x>
40. Fellah, M., Hezil, N., Bouras, D., ... & El-Hiti, G. A. (2024). Investigating the effect of Zr content on electrochemical and tribological properties of newly developed near  $\beta$ -type Ti-alloys (Ti-25Nb-xZr) for biomedical applications. *Journal of Science: Advanced Materials and Devices*, 9, 100695. DOI: <https://doi.org/10.1016/j.jsamd.2024.100695>
41. Rasheed, M., Sarhan, M. A., Jaber, A. S., Bouras, D., Al-Darraj, M. N., & Rashid, A. (2022). Statistical Analysis of Aluminum Doped Titanium Dioxide. *Journal of Al-Qadisiyah for Computer Science and Mathematics*, 14(3), pp Math. 1–8.
42. Rasheed, M., Sarhan, M. A., Jaber, A. S., Bouras, D., Al-Darraj, M. N., & Rashid, A. (2022). Statistical Analysis of Copper Doped Titanium Dioxide. *Journal of Al-Qadisiyah for Computer Science and Mathematics*, 14(3), pp Math. 80–88.
43. Benzitouni, S., Zaabat, M., Khial, A., ... & Bouras, D. (2016). High Sensitivity of Porous Cu-Doped SnO<sub>2</sub> Thin Films to Methanol. *Advances in Nanoparticles*, 5, 140-148.

44. Chehhat, K., Mecif, A., Noua, A. E., ... & **Bouras, D.** (2023). Effect of Temperature on Porous Ceramic Substrates Supported ZnO Thin Films for Enhanced Photocatalytic Activity. *Journal of Nano Research*, 81, 141-156.
45. Rasheed, M., Saleem, M. M. N. M., Marzoog, T. R., ... & **Bouras, D.** (2023). Effect of caffeine-loaded silver nanoparticles on minerals concentration and antibacterial activity in rats. *Journal of Advanced Biotechnology and Experimental Therapeutics*, 6(2), 495-509. DOI: <https://doi.org/10.5455/jabet.2023.d144>
46. Toualbia, K., Fellah, M., Hezil, N., ... & **Bouras, D.** (2025). Tribocorrosion Behavior of Near-Beta Alloys for Biomedical Applications. In *TMS Annual Meeting & Exhibition* (pp. 525-536). Springer. DOI: [https://doi.org/10.1007/978-3-031-80748-0\\_47](https://doi.org/10.1007/978-3-031-80748-0_47)
47. Zerouali, M., **Bouras, D.**, Fellah, M., Daïra, R., Barille, R., & Sellam, M. (2025). Degradation of Orange II Dye of Zn-Doped Copper Oxide Thin Films Deposited by Spin-Coating Method. In *TMS Annual Meeting & Exhibition* (pp. 121-127). Springer. DOI: [https://doi.org/10.1007/978-3-031-80664-3\\_10](https://doi.org/10.1007/978-3-031-80664-3_10)
48. Bouchareb, N., Hezil, N., Fellah, M., **Bouras, D.**, ... & Montagne, A. (2025). Investigating the Tribological Behavior of Nitinol Alloys Manufactured via Mechanical Alloying for Hip Implant Applications. In *TMS Annual Meeting & Exhibition* (pp. 403-412). Springer. DOI: [https://doi.org/10.1007/978-3-031-80680-3\\_38](https://doi.org/10.1007/978-3-031-80680-3_38)

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## Detailed List of Conference Presentations

### International Conferences

1. **Conference & Exhibition (SATF 2018)**, International conference on science & application in thin films.
  - **Location:** Cesme, Izmir, Turkey
  - **Date:** September 17-21, 2018
  - **Authors:** D. Bouras and All

- **Title:** "The effect of Cu:ZnO and Mg:ZnO thin films deposit on porous ceramic for the structural, morphological and photocatalytic properties"

2. **International Conference on Materials Physics, Mechanics and Applications (ICMPMA2022)**

- **Location:** India
- **Date:** May 9-13, 2022
- **Authors:** Zerouali Madiha, Bouras Dikra, Daïra Radouane, and Boudjema Bouzid
- **Title:** "Undoped and doped copper oxide thin films by sol gel method for photovoltaic applications"

3. **International Conference on Materials Physics, Mechanics and Applications (ICMPMA2022)**

- **Location:** India
- **Date:** May 9-13, 2022
- **Authors:** Zerouali Madiha, Daïra Radouane, Bouras Dikra, and Boudjema Bouzid
- **Title:** "Synthesis and Characterization of undoped and doped copper oxide thin films" (Poster)

4. **2nd International Baku Conference on Scientific Research**

- **Location:** Baku, Azerbaijan / Turkey
- **Date:** April 28-30, 2021
- **Authors:** D. Bouras and all
- **Title:** "Porous surface processes of ceramic/MgO powder in the photocatalytic activity, prepared by traditional mixture method"

## 5. Scientific Days of the Bretagne-Pays de la Loire Section

- **Location:** Le Mans, France
- **Date:** May 2-4, 2017
- **Authors:** D. Bouras and all
- **Title:** "Influence of Cu doped ZnO thin layer on the photocatalytic activity, deposited by the Autoclave method on the ceramic"

## 6. 3rd International Symposium on Materials and Sustainable Development (ISMSD2017)

- **Location:** Boumerdes, Algeria
- **Date:** November 7-8, 2017
- **Authors:** D. Bouras and all
- **Title:** "PHOTOCATALYTIC ACTIVITY OF MG-DOPED ZNO THIN FILMS PREPARED BY SOL-GEL METHOD DEPOSITED ON POROUS CERAMIC SUBSTRATES"

## 7. 3rd Scientific Meeting on the Effect of Neutron Irradiation on Materials (EINM'2017)

- **Location:** Centre de recherche de Draria, Alger, Algérie
- **Date:** October 24-25, 2017
- **Authors:** D. Bouras and all
- **Title:** "The effect of addition Mg in the ceramics on the morphological, structural and chemical composition analysis with application for Orange II removal"

## 8. 2nd International Days of Physics

- **Location:** Université des freres Mentouri Constantine 1, Algeria
- **Date:** December 14-15, 2016

- **Authors:** D. Bouras and all
- **Title:** "Effect of Cu-doped ZnO active layers on the photocatalytic degradation deposited on ceramics prepared by Sol-gel and Autoclave methods"

#### 9. **2nd National Salon of Research Products**

- **Location:** Palais des Expositions, Pins Maritimes - SAFEX, Alger, Algérie
- **Date:** July 2-4, 2018
- **Authors:** D. Bouras and all
- **Title:** "Antibacterial activity of new composites ceramics/ZnO/CuO prepared by a co-precipitation method"

#### 10. **The 7th International Workshop on Applied Mathematics and Modelling (WIMAM'2023)**

- **Location:** Université 8 Mai 1945 Guelma, Algeria
- **Date:** December 13-14, 2023
- **Authors:** Nawel Hambli, AZZOUZI Faïçal, BOUGUERRA Abdesselam, BOURAS Dikra, KHERIF Madjeda
- **Title:** "W-shaped soliton solution for the inhomogeneous higher-order non-linear Schrödinger equation using the trial equation method"

#### **National Conferences (Algeria)**

#### 11. **1st National Day on Analytical Sciences, Materials and Environment**

- **Location:** Université Oum el Bouaghi, Algérie
- **Date:** June 5, 2016
- **Authors:** D. Bouras and all
- **Title:** "Photocatalytic decolouration of Orange II by Cu-doped ZnO active layers on ceramics prepared by sol- gel and autoclave methods"

## 12. 2nd National Day of Materials and their Applications

- **Location:** Université Oum el Bouaghi, Algérie
- **Date:** June 8, 2015
- **Authors:** D. Bouras and all
- **Title:** "Dégradation photocatalytique d'Orange II par des couches actives de ZnO et ZnO dopé de Cu déposé sur des céramique"

## 13. 1st National Day of Materials

- **Location:** Université Oum el Bouaghi, Algérie
- **Date:** June 10, 2014
- **Authors:** D. Bouras and all
- **Title:** "Elaboration et caractérisation des matériaux réfractaires à base de mullite et de zircon"

## 14. Materials Sciences And Engineering (MSE'22)

- **Location:** Khenchela, Algeria
- **Date:** July 27-28, 2022
- **Authors:** N.Djabbari, D. Bouras, H. Farh and T. Ziar
- **Title:** "Étude théorique et numérique du phénomène de transport dans les semiconducteurs"

## 15. Materials Sciences And Engineering (MSE'22)

- **Location:** Khenchela, Algeria
- **Date:** July 27-28, 2022
- **Authors:** N.Djabbari1, D. Bouras, M. Khechba, H. Farh and T. Ziar

- **Title:** "Thin layers of pure zinc oxide and its effect on structural properties with increased thickness"

**16. National Conference on Physics and Chemistry (CNLPM 2022)**

- **Location:** ELTARF, ALGERIA
- **Date:** June 9, 2022
- **Authors:** Zerouali Madiha, Daira Radouane, Bouras Dikra, and Boudjema Bouzid
- **Title:** "Structural and optical properties of Aluminum doped Copper oxide thin films"

**17. Applied Chemistry and Environmental Engineering Conference (ACREIC 2022)**

- **Location:** Tebessa, Algeria
- **Date:** November 26-28, 2022
- **Authors:** Nahla Djebbari, M. Khechba, D. Bouras, S. Mellal, T. Ziar and H. Farh
- **Title:** "Structural, optical properties of NiO thin film prepared by sol-gel solution process"

**18. International Conference on Materials Sciences and Applications (MatScience-2022)**

- **Location:** Khenchela, Algeria
- **Date:** December 13-15, 2022
- **Authors:** Dikra Bouras et All
- **Title:** "Removal of methylene blue dye by photocatalysis in the presence of powder (AgO/ZnO/CuO)"

**19. International Conference on Materials Sciences and Applications (MatScience-2022)**

- **Location:** Khenchela, Algeria

- **Date:** December 13-15, 2022
- **Authors:** Dikra Bouras et All
- **Title:** "Effect of Zr:ZO thin layers on photocatalysis deposited on two types of ceramics in two different methods"

**20. International Conference on Materials Sciences and Applications (MatScience-2022)**

- **Location:** Khenchela, Algeria
- **Date:** December 13-15, 2022
- **Authors:** Dikra Bouras et All
- **Title:** "Effect of the number of zinc oxide thin layers placed on a DD3Z ceramic substrate in the filtration of an organic dyes solution"

**21. International Conference on Materials Sciences and Applications (MatScience-2022)**

- **Location:** Khenchela, Algeria
- **Date:** December 13-15, 2022
- **Authors:** Dikra Bouras et All
- **Title:** "Effect of sintering on the structural and mechanical properties of different types of ceramic materials"

**22. International Conference on Materials Sciences and Applications (MatScience-2022)**

- **Location:** Khenchela, Algeria
- **Date:** December 13-15, 2022
- **Authors:** Dikra Bouras et All
- **Title:** "Properties of the three types of kaolin after adding magnesium oxide"

**23. International Conference on Materials Sciences and Applications (MatScience-2022)**

- **Location:** Khenchela, Algeria

- **Date:** December 13-15, 2022
- **Authors:** Zerouali Madiha, Daïra Radouane, Bouras Dikra, and Boudjema Bouzid
- **Title:** "Effet of doping by different elements in copper oxide thin films on structural and optical properties" (Oral)

#### 24. International Conference on Materials Sciences and Applications (MatScience-2022)

- **Location:** Khenchela, Algeria
- **Date:** December 13-15, 2022
- **Authors:** Zerouali Madiha, Daïra Radouane, Bouras Dikra, and Boudjema Bouzid
- **Title:** "The importance of the optical characteristics of CuO and their uses as absorbing layer in solar cells" (Oral)

#### 25. International Conference on Materials Sciences and Applications (ICMSA-2023)

- **Location:** Khenchela, Algeria
- **Date:** February 8-9, 2023
- **Authors:** Zerouali Madiha, Daïra Radouane, Bouras Dikra, and Boudjema Bouzid
- **Title:** "The importance of the optical characteristics of CuO and their uses as absorbing layer in solar cells" (Oral)

#### 26. National Seminar on Physics and Chemistry and their Applications (NSPCA-2023)

- **Location:** Bordj Bou Arreridj, Algeria
- **Date:** March 6-7, 2023
- **Authors:** Zerouali Madiha, Daïra Radouane, Bouras Dikra, and Boudjema Bouzid

- **Title:** "Elaboration and characterization of CuO/ZnO multi layers" (Oral)

**27. National Conference on Physics and its Applications (NCPA2023)**

- **Location:** ENS Bousaada, Algeria
- **Date:** December 2, 2023
- **Authors:** Nawel Hambli, Faical Azzouzi, Abdesselam Bouguerra, Dikra Bouras
- **Title:** "New soliton solutions for the inhomogeneous higher-order non-linear Schrödinger equation in the Presence of quadratic-cubic nonlinearity" (Poster)

**28. 2nd National Conference on Materials Sciences and Engineering (MSE'23)**

- **Location:** University Centre of Maghnia, Algeria
- **Date:** December 12-13, 2023
- **Authors:** Dikra Bouras, Mamoun FELLAH, Fouzia HAMMADI, Nawel HAMBLI, Regis Barillé
- **Title:** "Diffusion and porosity property study for a mixture of porous ceramic substrates supported by zinc and magnesium material"

**29. 2nd National Conference on Materials Sciences and Engineering (MSE'23)**

- **Location:** University Centre of Maghnia, Algeria
- **Date:** December 12-13, 2023
- **Authors:** Fouzia HAMADI, Mamoune FELLAH, Dikra BOURAS
- **Title:** "Characterization of Fluorine-doped SnO<sub>2</sub> Thin Films for Photovoltaic and Optoelectronic Applications"

**30. First National Conference on Non Linear Differential Equations and their Applications (NCNDEA'2024)**

- **Location:** Oum El Bouaghi University Larbi Ben M'hidi, Algeria

- **Date:** February 10-11, 2024
- **Authors:** Nawel Hambli, Faical Azzouzi, Abdesselam Bouguerra, Dikra Bouras
- **Title:** "Kink soliton solution for the inhomogeneous higher-order non-linear Schrödinger equation in the presence of quadratic-cubic law nonlinearity"

### 31. National Conference on Statistical Modeling (NCSM 2023)

- **Location:** Djelfa, Algeria
- **Date:** December 20, 2023
- **Authors:** Nawel Hambli, Faïçal AZZOUZI, Abdesselam BOUGUERRA, Bassma HAMDI, Dikra BOURAS, Salaheddine BENCHELLALI
- **Title:** "Kink soliton solution for the inhomogeneous higher-order non-linear Schrödinger equation in the presence of quadratic-cubic law nonlinearity"

### 32. The Second National Seminar on Chemistry and its Applications (SNCA-2-2023)

- **Location:** University of Batna 1, Algeria
- **Date:** November 29-30, 2023
- **Authors:** Dikra Bouras, Mamoun FELLAH, Fouzia HAMMADI, Nawel HAMBLI
- **Title:** "Photocatalytic Activity of DD3-MgO and DD3Z-MgO Ceramics Powders, prepared by co-precipitation method"

### 33. The Second National Seminar on Chemistry and its Applications (SNCA-2-2023)

- **Location:** University of Batna 1, Algeria
- **Date:** November 29-30, 2023
- **Authors:** Souada Bouhadjar, Dikra Bouras, Nacer Hebbir, Regis Barille
- **Title:** "Structural and optical properties of Silver Oxide AgO thin films with different layers number"

**34. International Conference on Physics of Materials and Structural Analysis (ICPMSAM 2023)**

- **Location:** Skikda, Algeria
- **Date:** November 27-28, 2023
- **Authors:** Dikra Bouras, Mamoun FELLAH, Zerouali Madiha, Daira Radouane
- **Title:** "Improving the mechanical properties of DD3 ceramic samples by adding calcium phosphate"

**35. International Conference on Physics of Materials and Structural Analysis (ICPMSAM 2023)**

- **Location:** Skikda, Algeria
- **Date:** November 27-28, 2023
- **Authors:** Zerouali Madiha, Daira Radouane, Dikra Bouras, Boudjema Bouzid
- **Title:** "Using a thin film of a mixture of copper oxide and silver in photocatalysis application"

**36. International Conference on Physics of Materials and Structural Analysis (ICPMSAM 2023)**

- **Location:** Skikda, Algeria
- **Date:** November 27-28, 2023
- **Authors:** Zerouali Madiha, Daira Radouane, Dikra Bouras, Boudjema Bouzid
- **Title:** "Study thin layer of CuO/CuAlO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> in photocatalysis application"

**37. 7th International Congress of Chemistry (CIC-7)**

- **Location:** University of Batna-1, Algeria
- **Date:** November 27-29, 2024

- **Authors:** Fouzia HAMADI, Dikra BOURAS
- **Title:** "Comparison of the Antimicrobial Activity of Thymus vulgaris and Eucalyptus globulus Essential Oils Against Pathogenic Strains"

**38. The 2nd National Seminar of Physics, Chemistry and their Applications (NSPCA'25)**

- **Location:** Mohamed El Bachir El Ibrahimi University, Bordj-Bou-Argeridj, Algeria
- **Date:** February 16, 2025
- **Authors:** Dikra Bouras, Mamoun Fellah, Fouzia Hamadi
- **Title:** "Enhanced Photocatalytic Performance of Zr-Doped ZnO Thin Films on Ceramic Substrates for Water Purification Applications"

**39. The 2nd National Seminar of Physics, Chemistry and their Applications (NSPCA'25)**

- **Location:** Mohamed El Bachir El Ibrahimi University, Bordj-Bou-Argeridj, Algeria
- **Date:** February 16, 2025
- **Authors:** Fouzia Hamadi, Mamoun Fellah, Dikra Bouras
- **Title:** "Feasibility Study of Biomedical Ti-Nb-Zr Alloy Production by Powder Metallurgy: Analysis of Properties and Biocompatibility"

**40. 3rd NATIONAL CONFERENCE ON MATERIALS SCIENCES AND ENGINEERING (MSE'25)**

- **Location:** Hassiba Benbouali University of Chlef, Algeria
- **Date:** June 11-12, 2025
- **Authors:** Manel SELLAM, Soulef AZIZI, Dikra BOURAS, Mamoun FELLAH

- **Title:** "Étude Comparative de la Photodégradation d'un colorant organique sous Irradiations Solaire et Artificielle en Présence de Couches Minces Élaborées par la Technique Dip Coating"

**41. 3rd NATIONAL CONFERENCE ON MATERIALS SCIENCES AND ENGINEERING (MSE'25)**

- **Location:** Hassiba Benbouali University of Chlef, Algeria
- **Date:** June 11-12, 2025
- **Authors:** Manel SELLAM, Soulef AZIZI, Dikra BOURAS, Mamoun FELLAH
- **Title:** "Amélioration de l'Activité Photocatalytique du TiO<sub>2</sub> par Dopage au Nickel (5 %) : Étude de la Dégradation du Bleu de Méthylène en Milieu Aqueux"

**42. 3rd NATIONAL CONFERENCE ON MATERIALS SCIENCES AND ENGINEERING (MSE'25)**

- **Location:** Hassiba Benbouali University of Chlef, Algeria
- **Date:** June 11-12, 2025
- **Authors:** Manel SELLAM, Dikra BOURAS, Mamoun FELLAH, Soulef AZIZI
- **Title:** "Effet du traitement thermique sur l'activité photocatalytique du TiO<sub>2</sub> pour la dégradation d'un colorant synthétique"

**43. 3rd NATIONAL CONFERENCE ON MATERIALS SCIENCES AND ENGINEERING (MSE'25)**

- **Location:** Hassiba Benbouali University of Chlef, Algeria
- **Date:** June 11-12, 2025
- **Authors:** Manel SELLAM, Dikra BOURAS, Mamoun FELLAH, Soulef AZIZI
- **Title:** "Étude Comparative De l'Influence De La Concentration En Nickel (3 % Et 5 %) Sur Les Propriétés Photocatalytiques Des Oxydes Métalliques Pour La Dégradation Du Bleu De Méthylène"