



WASIT University
College of Science

Prof. Dr. Alzubaidy Muneer Hlail

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Date of Birth:25.06.1966

<https://scholar.google.com/citations?user=nw1iPa4AAAAJ&hl=en>

https://www.researchgate.net/profile/Muneer_Jaduaa

<https://www.scopus.com/authid/detail.uri?authorId=57292910600>

<https://www.scopus.com/authid/detail.uri?authorId=57222959418>

Academic Qualifications

06/2003

PhD of Semiconductor Physics

Department of Solid State and Nanostructure Physics
Voronezh State University, Russian Federation

Doctoral Thesis: " ELECTROCONDUCTIVITY OF SENSOR LAYERS OF TIN DIOXIDE WITH MODIFIED THICKNESS "

06/ 1999

Master of Condensed Matter Physics (First Class Honours)

Department of Solid State and Nanostructure Physics
Voronezh State University, Russian Federation

Masters Thesis: " Barriers Energy structure influence on sensor activity of SnO₂ thin films "

07/1988

Bachelor of physics

Baghdad University , Iraq

Professional Profile

- Highly developed research qualitative and analytical skills with a strong capacity to conduct independent research
- Demonstrated ability to develop goals, objectives and implement strategies through lesson planning and teaching experience
- Proven ability to conceptualise problems and develop well-reasoned and integrated solutions especially in the field of thin film, semiconductor and nanomaterials research
- Working knowledge of Word, Excel, PowerPoint

Academic Employment – Teaching and Research

07/1999 – 7/2003 **Department of Solid State and Nanostructure Physics**
Voronezh State University, Russian Federation
Taught general physics to first-year level students for two semesters

07/2005 – to date **Department of Physics**
College of Science / Wasit University
Lecturer and researcher with 20+ years of experience teaching courses in undergraduate in the field of semiconductor physics , thin films and modern physics .

Department of Physics
College of Science / Wasit University
Lecturer and researcher with 20+ years of experience teaching courses in postgraduate level in the field of Advanced Semiconductor physics and Thin films.

Supervised 25 BA theses, 13 MA theses, and 3 Ph.D. Published over 50 research work in peer-reviewed journals.

Employment History – General

09/2015 – 10/2018 **The head of Department of Physics**
College of Science / Wasit University / Iraq

06/2018 – 10/2019 **Dean of College of Science**
Wasit University / Iraq

Publications

Many studies, some of these researches:

1. “Structure, electro conductance and properties of gas sensitive layers of tin dioxide” Vestnik VGTU. Ser. Materialovedenie, Iss. 1.7. - P. 51 – 54 (2000).
2. “Electro conductance of gas-sensitive layers with surface-modulated conductivity under adsorption of donor gases”, Vestnik Voronezhskogo gos. University. Ser. Fizika, matematika. Iss. 1, P. 39 – 42 (2000).
3. “Character of change in electro conductance of sensor layers with modulated conductivity under adsorption of donor gases”, Noise and degradation processes in semiconductor devices: International Seminar (Moscow, 99): Abstracts of reports, P. 225 –229(1999).
4. “Gas sensitive layers with surface modulated conductivity”, Russian chemical and Biological Sensors: 4th Int. Workshop, Russia, St. Petersburg, P.168-169 (2000).

5. "Character of change in electro conductance of sensor layers based on tin dioxide", *Perspektivnye materialy*, №. 1, P. 20 – 24 (2002).
6. Study The Structural and Optical Properties of Fe_2O_3 Thin Films Prepared by RF Magnetron sputtering// *International Journal of Application or Innovation in Engineering & Management (IJAIEM)*, (Volume 4, Issue 4, April 2015
7. Structural and Optical properties of Cr_2O_3 thin films prepared via R.F magnetron sputtering /Almustansria University conference .2015/4/ 23-22 .
8. Influence of Thickness on Optical and Sensing Properties of MgO Thin Films Deposited by RF Magnetron Sputtering / *International Journal of Application or Innovation in Engineering & Management (IJAIEM)* Volume 3, Issue 5, May 2014
9. The Effect of Substrate Temperature on The Band Transition ,Cauchy, Dispersion and Urbach Energy of Nanostructure CdO Thin Films *International Letters of Chemistry, Physics and Astronomy* Vol. 58 (2015) pp 83-89.
10. Study of The Structural and Optical Properties of Titanium dioxide Thin Films Prepared by RF Magnetron sputtering *International Journal of Application or Innovation in Engineering & Management (IJAIEM)* Volume 3, Issue 5, May 2014
11. Plasma Etching Techniques, For Enhancing The Titanium Dioxide Sensitivity To Ammonia Gas . *Journal of Multidisciplinary Engineering Science Studies (JMESS)* Vol. 2 Issue 2016
12. Structural and sensing properties of nanostructured Titanium dioxide Thin Films , *International Journal of Application or Innovation in Engineering & Management (IJAIEM)*. Volume 5, Issue 6, June 2016
13. The Effect of Substrate Temperature on The Band Transition ,Cauchy Dispersion and Urbach Energy of Nanostructure CdO Thin Films . *International Letters of Chemistry, Physics and Astronomy* Vol. 58 (2015) pp 83-89.
14. Preparation, Characterization And Optical Properties Of Copper Oxide Thin Films , *Journal of Multidisciplinary Engineering Science Studies (JMESS)* ISSN: 2458-925 Vol. 3 Issue 8, August - 2017
15. Silver Nanoparticles (Ag NPs) Prepared By Laser Ablation In Ethanol , *Journal of Multidisciplinary Engineering Science Studies (JMESS)* ISSN: 2458-925 Vol. 3 Issue 7, July – 2017
16. Studying of deposit time for CdS thin films prepared by chemical bath deposition (CBD) with two different annealing temperature. *International Journal of Recent Research and Applied Studies* .issue. 9(4). 2017
17. Characterization of Titania thin film behavior preparation by spray pyrolysis. *Indian Journal Of Natural Sciences*. issue. 9(51). 2018
18. Studying the Linear and Nonlinear Optical Properties by using Z-Scan Technique for CdS Thin Films Prepared by CBD Technique, *Applied Physics Research*; Vol. 10, No. 3; 2018
19. Synthesis and investigation of optical, structural, and morphological characteristics of nanostructured $\text{TiO}_2\text{-ZnO}$ thin films. *World Scientific News*. 123. Pages: 87-101.2019
20. Fabrication and Characterization of CuO:NiO Composite for Solar Cell Applications. *Journal of Advanced Research in Dynamical & Control Systems*. 12(4). Pages: 179 – 186 .2019
21. Preparation of Bismuth Oxide Nano platelets/ Pb/Si / hetrojunction by simple chemical method for solar cell application. *The International Conference of Chemistry* 17-18th December 2020/
22. Biosynthesis and characterization of CdO nanostructure and its influence on cancer cells of (HT29)/ *The International Conference of Chemistry* 17-18th December 2020/
23. Quantum dots gold nanoparticles /porous silicon/silicon for solar cell applications"/ *Materials Today (Elsevier)* Acceptance for publication/ 2021

24. Green Synthesis of Cadmium Oxide Nanoparticles for Biomedical applications (Antibacterial, and Anticancer Activities/2021
25. Al₂O₃ NPs /Porous Silicon/Silicon Photovoltaic Device/ The International Conference of Chemistry 17-18th December 2020/
26. Laser ablation of nickel oxide nanoparticles in water and its antibacterial activity/Neuro Quantology/July 2022
27. ZnO:CuO Nanocomposite Produced by Laser Ablation in Water for Antibacterial Activity/ of Pharmaceutical Negative Results October 2022Journal
28. Biosynthesis of cadmium oxide nanoparticles (CdO NPS) using aqueous rhizome extract of curcuma for biological applications/ October 2022AIP Conference Proceedings 25 October 2022
29. Copper and Nickel Oxide Nanostructures' in Vitro Antibacterial and Anticancer Activities in Human Breast Cancer 7 Cells of the Michigan Cancer Foundation/ Academic J. for Engineering and Science N.4 V 4 January 2023
30. Design and Fabrication of a Multi-Junction Hybrid Heterostructure Based on ZnO/CuO/PS/Si for Advanced Optoelectronic Applications [Journal of Solar Energy Research](#)Article2025 DOI: 10.22059/jser.2025.398689.1599Copy to clipboard.
31. Thermal Effects on the Electrical Performance of Multilayer Graphene/Silicon Schottky DiodesJournal of Physics: Conference SeriesConference Paper Open Access 2025 DOI: 10.1088/1742-6596/2974/1/012010
32. Microbial and Chemical Synthesis of Cobalt Oxide Nanoparticles and Their Antimicrobial Activities Iraqi Journal of Applied PhysicsConference Paper2024
33. The effect of graphene layers on the optoelectronic properties of graphene–silicon photodetector Journal of Materials Science: Materials in ElectronicsArticleOpen Access2023 DOI: 10.1007/s10854-023-10848-2
34. Biosynthesis Of Cadmium Oxide Nanoparticles (CdO NPS) Using Aqueous Rhizome Extract Of Curcuma For Biological Applications AIP Conference ProceedingsConference Paper2022 DOI: 10.1063/5.0097587
35. Green-synthesis and characterization of novel ZnO: Ago: TiO₂nanocomposite for antibacterial activity AIP Conference ProceedingsConference Paper2022 DOI: 10.1063/5.0093369
36. Biosynthesis and Characterization of ZnO: Ag₂O Nanocomposite for Antifungal Efficacy Journal of Physics: Conference SeriesConference PaperOpen Access2021 DOI: 10.1088/1742-6596/2114/1/012081
37. Enhancing Photovoltaic Performance of Porous Silicon Solar Cells with Al₂O₃ Nanoparticles prepared by electrolysis method Journal of Physics: Conference SeriesConference PaperOpen Access 2021 DOI: 10.1088/1742-6596/1999/1/012138
38. Al₂O₃NPs/porous silicon/silicon photovoltaic device Journal of Physics: Conference SeriesConference PaperOpen Access2021 DOI: 10.1088/1742-6596/1853/1/012046
39. Biosynthesis and characterization of CdO nanostructure and its influence on cancer cells of (HT29) Journal of Physics: Conference SeriesConference PaperOpen Access2021 DOI: 10.1088/1742-6596/1853/1/012047
40. Preparation of Bismuth Oxide Nanoparticles/PSi/Si hetrojunction by simple chemical method for solar cell applications Journal of Physics: Conference SeriesConference PaperOpen Access2021 DOI: 10.1088/1742-6596/1853/1/012045

41. Green-synthesis of Ag₂O nanoparticles for antimicrobial assays Journal of the Mechanical Behavior of Materials Article Open Access 2021 DOI: 10.1515/jmbm-2021-0024
42. Green synthesis of cadmium oxide nanoparticles for biomedical applications (antibacterial, and anticancer activities) Materials Today: Proceedings Conference Paper 2021 DOI: 10.1016/j.matpr.2021.03.168

Additional Activities

- **Editor in Chief of Wasit Journal of Science and Medicine, Wasit University /Iraq 2015–2018.**
- **Wasit University Scientific Council 2018-2019**
- **The Dept. of Physics Scientific Council 2005 –present.**
- **Central Promotion Committee in the College of Science / Wasit University 2014-2017.**
- **Central Promotion Committee in Wasit University 2019- present.**
- **Head of the Thin Film Research Laboratory / Physics Department / College of Science / Wasit University 2010- present.**

Languages

English

Russian