



Mahdi Ahmed Mohammed

مهدي احمد محمد مهدي الزبيدي

Professor

ACADEMIC TITLES

2025-10-12

Professor

COURSES

- Semiconductor
- Semiconductor
- Nanoscience in Medicine
- Physics of Materials
- Biomaterials
- Thin Films
- Nanophysics
- Analog Electronics

GRADUATE SUPERVISION

Synthesis of ZnO NPs Using UV Irradiation and Study Their Application as a Biosensor

Nour Al-Huda Muhammad Nouri (2022)

PUBLICATIONS (4 3)

1. **Bioactive and Antibacterial Polycaprolactone-Coated TiO₂/Hydroxyapatite Nanocomposites Doped with Silver for Bone Implant Applications**
BioNanoScience 16 (5), 301, 2026 | 2026
2. **Bioactive and antibacterial polycaprolactone-coated TiO₂/hydroxyapatite nanocomposites doped with silver for bone implant applications**
2026
3. **Dielectric and Magnetic Properties of Nanocrystalline Bismuth Ferrite under Exposed Gamma and Neutron Radiation**
Bulletin of the Russian Academy of Sciences: Physics 90 (8), 1427-1433, 2026 | 2026
4. **Magnetically enhanced ZnFe₂O₄ nanocomposite: a promising antibacterial, and antioxidant strategies**
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY | 2025
5. **Experimental investigation of the dielectric properties of nanocomposite materials containing graphene oxide and barium titanate in a polyester matrix**
AIP Conference Proceedings 3395 (1), 020019, 2025 | 2025
6. **Magnetically enhanced ZnFe₂O₄ nanocomposite: a promising antibacterial, and antioxidant strategies**
Journal of Sol-Gel Science and Technology 115 (3), 1557-1566, 2025 | 2025 | Cited: 6
7. **Fabrication of Dye-Sensitized Solar Cell Using CuO Nanoparticles as a Photo anode**
Baghdad Science Journal 22 (7), 2133-2143, 2025 | 2025 | Cited: 4

CONTACT

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EDUCATION

دكتوراه (18-03-2018)
Nanophysics
University of Manchester

RESEARCH METRICS

h-index (Scopus)	7
h-index (GS)	8
Citations (Scopus)	479
Citations (GS)	680
Documents (Scopus)	22
Documents (GS)	37

RESEARCH INTERESTS

- nanomaterials
- composite materials



8. **An IT-Guided Design of Smart Bio-Nanocomposite Films for Next-Generation Antimicrobial Wound**
Proceedings of the International Conference on Applied Innovations in IT ... 2025 | 2025
9. **Gold-capped Fe₃O₄ nanoparticles with a magnetic field by damaging their DNA and generating more oxygen radicals, colon cancer cells can be made to die**
Journal of Theoretical and Applied Physics 18, 2024 | 2024 | Cited: 4
10. **Superparamagnetic Fe₃O₄ nanoparticles capped with silver induce apoptosis of colon cancer cells via damaging DNA@increasing ROS**
Nano Structures and Nano Objects | 2024 | Cited: 8
11. **Study of dielectric properties of nanocrystalline material BaTiO₃-SiO₂**
Ferroelectrics 612 (1), 144-151, 2023 | 2023 | Cited: 3
12. **Study of dielectric properties of nanocrystalline material BaTiO₃-SiO₂**
FERROELECTRICS | 2023
13. **The effect of silica addition on dielectric properties of barium titanate nanoparticles**
Journal of Wasit for Science and Medicine 16 (3), 19-27, 2023 | 2023
14. **DIELECTRIC AND ELECTRIC PROPERTIES OF BaTiO₃-SiO₂ NANOCOMPOSITES**
2022
15. **Fe₃O₄/Au SUPERPARAMAGNETIC NANOPARTICLES COMBINED WITH NIR LASER AND ALTERNATING MAGNETIC FIELD FOR TREATMENT OF LIVER CANCER CELLS**
Journal of Optoelectronics Laser 41 (7), 1055-1062, 2022 | 2022 | Cited: 1
16. **Preparation of Fe₃O₄-Au @ Fe₃O₄-Ag Composite Nanoparticles and Cytotoxicity Study of kidney parameters in mice**
Nanomedicine Research Journal | 2022 | Cited: 10
17. **A novel method in Effects of Fe₃O₄-Ag nanoparticles on liver cancer cells by the used alternating magnetic field and NIR laser ablation**
NEUROQUANTOLOGY 20 (10), 6165-6174, 2022 | 2022
18. **Effect of the chloroform as a chemical treatment on gas sensing for cupct₃/alq₃ thin films**
Digest Journal of Nanomaterials and Biostructures | 2021 | Cited: 10
19. **EFFECT OF THE CHLOROFORM AS A CHEMICAL TREATMENT ON GAS SENSING FOR CuPcTs/Alq₃ THIN FILMS**
DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES | 2021
20. **Preparation of ZincOxide Nanoparticles by UV-IrradiationMethod in Two Different Media**
Journal of Physics: Conference Series 2114 (1), 012079, 2021 | 2021 | Cited: 4
21. **Preparation of ZincOxide Nanoparticles by UV-Irradiation Method in Two Different Media**
Journal of Physics Conference Series | 2021
22. **Localized surface plasmon resonance based photonic crystal fiber for cadmium detection**
NeuroQuantology 19 (7), 187-195, 2021 | 2021 | Cited: 8
23. **Heavy metal detection based on coreless fibers using the LSPR technique**
NeuroQuantology 19 (7), 78-83, 2021 | 2021 | Cited: 6
24. **Influence of annealing temperature on structure and optical properties of CdSe films using radio frequency sputtering**
AIP Conference Proceedings 2372 (1), 040006, 2021 | 2021 | Cited: 5
25. **Adsorption of selenium (Se⁴⁺) ions pollution by pure rutile titanium dioxide nanosheets electrochemically synthesized**
DESALINATION AND WATER TREATMENT | 2020
26. **The Removal Of Zinc Ions From Their Aqueous Solutions By Cr₂O₃ Nanoparticles Synthesized Via The UV-irradiation Method**
EGYPTIAN JOURNAL OF CHEMISTRY | 2020
27. **The removal of zinc ions from their aqueous solutions by Cr₂O₃ nanoparticles synthesized via the UV-irradiation method**
Egyptian Journal of Chemistry 63 (2), 425-431, 2020 | 2020 | Cited: 57

28. **A universal electrolyte formulation for the electrodeposition of pristine carbon and polypyrrole composites for supercapacitors**
ACS Applied Materials & Interfaces 12 (11), 13386-13399, 2020 | 2020 | Cited: 47
29. **Adsorption of selenium (Se⁴⁺) ions pollution by pure rutile titanium dioxide nanosheets electrochemically synthesized**
Desalination and Water Treatment 194, 187-193, 2020 | 2020 | Cited: 38
30. **Raman Spectra and Electronic Features for Nanotubes of ZnSSe Wurtziod: Ab-Initio**
Chalcogenide Letters 17 (5), 251-255, 2020 | 2020 | Cited: 6
31. **The Removal Of Zinc Ions From Their Aqueous Solutions By Cr**
2020
32. **Synthesis of silver nanoparticles using the UV-irradiation technique in an antibacterial application**
Journal of Southwest Jiaotong University 54 (5), 1-5, 2019 | 2019 | Cited: 77
33. **HAMEED S. A.**
54 (5), 2019 | 2019 | Cited: 2
34. **IMPACT OF THE HYDROGENATED ON CHARACTERIZATIONS OF ZnSe WURTZOIDS BASE ON DFT**
Chalcogenide Letters 16 (11), 507-511, 2019 | 2019 | Cited: 5
35. **Inhibition effect of silver-calcium nanocomposite on alanine transaminase enzyme activity in human serum of Iraqi patients with chronic liver disease**
Drug Invention Today 12 (11), 2818-2821, 2019 | 2019 | Cited: 36
36. **The use of Raman Spectroscopy to Study Carbon Nanotubes**
PQDT-UK & Ireland, 2018 | 2018 | Cited: 1
37. **Two-step electrochemical intercalation and oxidation of graphite for the mass production of graphene oxide**
Journal of the American Chemical Society 139 (48), 17446-17456, 2017 | 2017 | Cited: 339
38. **A proposed Mathematical Expression for Computer Design of Electrostatic Mirror**
Baghdad Science Journal 9 (1), 20, 2012 | 2012 | Cited: 1
39. **A study of Glaser's Ball–Shaped Magnetic Lens under the Effect of Current Density**
Journal of Wasit for Science and Medicine 3 (1), 27-33, 2010 | 2010 | Cited: 2
40. **Monodisperse water-soluble superparamagnetic iron oxide nanoparticles revealed as a high performance T2 contrast agent for MRI**
European Society for molecular imaging, Second International Conference,(ESMI), 2007 | 2007
41. **ФИЗИКА СЕГНЕТОЭЛАСТИКОВ**
Воронежский государственный технический университет КОНФЕРЕНЦИЯ: 15–19 ..., 0 / 0
42. **Superparamagnetic Fe O nanoparticles capped with silver induce apoptosis of colon cancer cells via damaging DNA@ increasing ROS**
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43. **TiO₂ Schottky diode**
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