



Mayyadah Hameed Mohsin Sultan Al-sudani

قيادة حميد محسن سلطان السوداني

PROFILE

****Mayyadah Hameed Mohsin Sultan Al-sudani**** is a dedicated academic and researcher with a proven record of scholarly impact. Through a rigorous approach to research, she has made notable contributions to her academic field, establishing a strong presence within the global scientific community.

Her research portfolio includes 34 publications indexed on Google Scholar, demonstrating a sustained commitment to advancing knowledge and addressing key questions within her discipline. Al-sudani's work is widely recognized for its relevance and academic rigor, having accumulated 915 citations to date. Her h-index of 16 reflects both the productivity of her scholarly output and its sustained influence on contemporary research discourse.

Dedicated to ongoing academic excellence, Al-sudani remains actively engaged in research innovation, knowledge dissemination, and scholarly collaboration, continuing to contribute meaningfully to her area of specialization.

ADMINISTRATIVE POSITIONS

2023-06-01 - 2026-08-06	.
2015-06-01 - 2020-11-01	.
2023-06-01 - 2025-08-06	.
2014-06-01 - 2015-08-06	.
2026-03-02 - 2026-07-01	.

PUBLICATIONS (3 5)

- Laser fluence dependent antibacterial activity of cadmium sulfide quantum dots prepared by one step laser ablation in liquid**
Scientific Reports, 2026 | 2026
- Innovative synthesis of Sb2O3@Ag core-shell nanoparticles by two-step laser ablation in liquid for photodetector applications**
RSC Advances | 2026
- ZnONPs/Cs/Fic/FA for overcoming multidrug-resistant infections and enhanced wound-healing**
Journal of Industrial and Engineering Chemistry, 2026 | 2026
- Eco-friendly synthesis of eggshell-derived nano-hydroxyapatite: physicochemical characterization, hemocompatibility, and bone regeneration potential**
Scientific Reports 15 (1), 32832, 2025 | 2025 | Cited: 14
- Aromatic volatile compounds of essential oils: distribution, chemical perspective, biological activity, and clinical applications**
Food Science & Nutrition 13 (9), e70825, 2025 | 2025 | Cited: 40
- Targeting of AMPK/MTOR signaling in the management of atherosclerosis: Outmost leveraging**
International Journal of Biological Macromolecules, 142933, 2025 | 2025 | Cited: 26
- Roles of Foods and Related Components: An Overview on Cancer Causatives, and Plausible Preventions**
Applied Food Research, 101132, 2025 | 2025 | Cited: 8

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RESEARCH METRICS

h-index (Scopus)	0
h-index (GS)	16
Citations (Scopus)	0
Citations (GS)	967
Documents (Scopus)	0
Documents (GS)	35

RESEARCH INTERESTS

- Nanotechnology and application, photodetectors and solar cell, antimicrobial nanomaterials and cancer treatment by nanoparticles
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8. **Intense pulsed light annealing of CdS and Au-decorated CdS nanoparticles for high-performance, self-powered silicon-based heterojunction photodetectors**
RSC Advances 15 (28), 22989-23002, 2025 | 2025 | Cited: 3
9. **High-performance n-V2O5/p-Si heterojunction photodetector prepared by pulsed laser deposition: role of laser fluence**
Journal of Materials Science: Materials in Electronics 36 (7), 426, 2025 | 2025 | Cited: 4
10. **Enhanced Gas Sensor Performance of Hydrothermally Synthesized Ag@Cu2O–Si: A Study at Low Temperature with High Sensitivity Approach: E. T. Salim et al.**
Journal of Electronic Materials, 1-17, 2025 | 2025 | Cited: 1
11. **Synthesis of Gd2O3/GdOOH nanocompound using pulsed laser ablation-fragmentation: Controlling experimental parameters for optimal crystallite size distribution**
AIP Conference Proceedings 3169 (1), 060004, 2025 | 2025 | Cited: 1
12. **Fabrication, characterization and application of biocompatible nanocomposites: a review**
European Polymer Journal 214, 113187, 2024 | 2024 | Cited: 77
13. **Essential oils pharmacological activity: Chemical markers, biogenesis, plant sources, and commercial products**
Process Biochemistry 144, 112-132, 2024 | 2024 | Cited: 98
14. **Effect of laser parameters on the structural properties of gadolinium oxide nanoparticles synthesis via pulsed laser ablation in liquid**
The European Physical Journal B 97 (10), 147, 2024 | 2024 | Cited: 7
15. **Optical and structural properties of H-BN@Gd2O3 nanoflake prepared by laser–induced ablation in liquid**
Physica Scripta | 2023 | Cited: 9
16. **Effect of laser energies on the performance of exfoliation and fragmentation for hexagonal boron nitride by laser**
Journal of Applied Sciences and Nanotechnology 3 (3), 20-36, 2023 | 2023 | Cited: 2
17. **Preparation of high-responsivity strontium–doped CuO/Si heterojunction photodetector by spray pyrolysis**
Journal of Materials Science: Materials in Electronics 34 (10), 912, 2023 | 2023 | Cited: 23
18. **A novel facile synthesis of metal nitride@metal oxide (BN/Gd2O3) nanocomposite and their antibacterial and anticancer activities**
Scientific Reports 13 (1), 22749, 2023 | 2023 | Cited: 33
19. **Synthesis of NiO/Si using sol-gel as a photosensor**
Silicon 14 (4), 1349-1355, 2022 | 2022 | Cited: 14
20. **Preparation of nanostructured FeS2/Si heterojunction photodetector by laser ablation in water under effect of an external magnetic field: M.H. Mohsin et al.**
Applied Physics A 127 (3), 214, 2021 | 2021 | Cited: 28
21. **Physical properties of sic nanostructure for optoelectronics applications**
Journal of Renewable Materials 9 (9), 1519, 2021 | 2021 | Cited: 41
22. **Antibacterial and cytotoxic activities of cerium oxide nanoparticles prepared by laser ablation in liquid**
Environmental Science and Pollution Research 27 (24), 30479-30489, 2020 | 2020 | Cited: 79
23. **Preparation and characterization of carbon nanotubes by pulsed laser ablation in water for optoelectronic application**
Physica E: Low-dimensional Systems and Nanostructures 119, 113997, 2020 | 2020 | Cited: 192
24. **Fabrication of high photosensitivity nanostructured n-Fe2O3/p-Si heterojunction photodetector by rapid thermal oxidation of chemically sprayed FeS2 film**
Materials Research Express 6 (12), 126202, 2019 | 2019 | Cited: 20
25. **Effect of laser energy on the properties of nanostructured lead iodide film prepared via pulsed laser deposition technique**
Optik 176, 206-213, 2019 | 2019 | Cited: 17

26. **Preparation of silver iodide nanoparticles using laser ablation in liquid for antibacterial applications**
IET nanobiotechnology 12 (6), 781-786, 2018 | 2018 | Cited: 88
27. **Spectroscopy and Formation of Carbon Nitride by Pulse Laser Ablation in Liquid of Graphite target**
Eng. & Tech. Journal 34 (1), 35, 2016 | 2016 | Cited: 1
28. **Synthesis of PbI₂ nanoparticles by laser ablation in methanol**
Journal of Materials Science: Materials in Electronics 27, 10696-10700, 2016 | 2016 | Cited: 60
29. **Fabrication Solar Cell Device From CdTe Nanoparticles Suspension**
2015 | Cited: 2
30. **Characterization of carbon nitride nanoparticles prepared by laser ablation in liquid for optoelectronic application**
Surface Review and Letters 22 (04), 1550055, 2015 | 2015 | Cited: 46
31. **Preparation of Carbon Nanotube by Pulse Laser Ablation of Graphite Target in Deionized Water**
Eng. & Tech. Journal 32 (1), 61, 2014 | 2014 | Cited: 12
32. **Electrical Conductivity of Carbon Nano Tubes Suspensions Prepared in Different Solutions**
Engineering and Technology Journal 32 (4), 637, 2014 | 2014
33. **Synthesis of polyynes by laser ablation of graphite in ethanol**
Iraqi Journal of Physics 11, 37, 2013 | 2013 | Cited: 18
34. **Carbon Nanotube Prepared by Pulse Laser Ablation of Graphite Target in Iso-Propanol solution**
Eng. & Tech. Journal 31 (16), 2013 | 2013 | Cited: 3
35. **Applied Food Research**
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