

Muhammad Talha Masood

Assistant Professor

School of Chemical & Materials Engineering

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About

Dr. Muhammad Talha Masood is working as Assistant Professor in the School of Chemical & Materials Engineering. Dr. Muhammad Talha Masood has a PhD in Physical Chemistry. Dr. Muhammad Talha Masood has published 14 research articles & conference papers having a citation count of 133, carried out 3 projects and filed 0 intellectual property.

Qualifications

PhD in Physical Chemistry Abo Akademi University , Finland	2015 - 2020
MS in Engineering Materials Science Royal Institute of Technology , Sweden	2010 - 2012
BS in Metallurgy & Materials Engineering Ghulam Ishaq Khan Institute of Science & Technology , Pakistan	2005 - 2009

Experience

Assistant Professor School of Chemical & Materials Engineering	2023- Present
Assistant Professor School of Chemical & Materials Engineering	2020 - 2020
Assistant Professor School of Chemical & Materials Engineering	2020 - 2020
Lecturer School of Chemical & Materials Engineering	2013 - 2020
Lecturer National University of Science & Technology (NUST), Pakistan , School of Chemical & Materials Engineering, National University of Science & Technology (NUST), H-12 sector, Islamabad	2013 - 2015

Awards

MOI, Teachers training Teacher's training program	2013
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Research Projects

National Projects

Thermal evaporator	2023
Funding Agency: Åbo Akademi University, Finland	
Amount: PKR 10,115,000.00	
Status: Completed	
Fabrication of Highly Stable Perovskite and All Oxide Solar Cells for Their Application as Solar Windows for Renewable Electricity Generation	2024
Funding Agency: Pakistan Science Foundation	
Amount: PKR 2,215,860.00	
Status: Approved_inprocess	
Fabrication of high efficiency perovskite solar cells for their application as solar windows for renewable electricity generation	2022
Funding Agency: NUST Research Fund (Grant for Young Researchers)	
Amount: PKR 1,000,000.00	
Status: Approved_inprocess	

International Projects

Research Articles

In-situ crystal growth of iron-copper MOF via graphene induction as an electrode material for the asymmetric supercapacitors	2025
Sarah Hakeem Ayesha Siddique Rehan Ullah Saqib Ali Muhammad Talha Masood Zeeshan Ali Ghulam Ali Sofia Javed	
Journal of Alloys and Compounds, Volume:1035	
Impact Factor: 6.3 Quartile: 1	
DOI: https://doi.org/10.1016/j.jallcom.2025.181324	
Elucidating bimetallic CuMnSe2/MWCNTs composite as redox-active electrode material for hybrid supercapacitors	2025
Rehan Ullah Zeeshan Ali Umaima Hamayun Amna Safdar Sofia Javed Muhammad Talha Masood Ghulam Ali Ayesha Siddique Syed Rizwan Hussain	
Journal of Energy Storage, Volume 109, Article Number 115124	
Impact Factor: 8.900 Quartile: 1 Citations: 4	
DOI: https://doi.org/10.1016/j.est.2024.115124	
Regenerable chitosan-embedded magnetic iron oxide beads for nitrate removal from industrial wastewater	2024
Muntaha Nasir Farhan Javaid Muhammad Talha Masood Muhammad Arshad Muhammad Yasir Vladimir Sedlarik Muhammad Abdel Qadir Hazim Qiblawey	
Wenjuan Zhang Kashif Mairaj Deen Edouard Asselin Dr. Nasir Mahmood Ahmad	
Environmental Science: Advances , Volume 3(4), Pages 572-584	
Impact Factor: 3.500 Quartile: 2 Citations: 8	
DOI: 10.1039/D3VA00351E	
Scalable Lead Acetate-Based Perovskite Thin Films Prepared via Controlled Nucleation and Growth under Near Ambient Conditions	2024
Saara Sirkiä Muhammad Talha Masood Mahboubeh Hadadian Syeda Qudsia Emil Rosqvist Jan-Henrik Smått	
ACS Omega , Volume 9(7), Pages 8266-8273	
Impact Factor: 4.100 Quartile: 2 Citations: 1	
DOI: 10.1021/acsomega.3c08912	
Multiwalled CNTs/copper sulfide hybrids embedded in polyaniline thin films for near-infrared (NIR) photo detecting applications	2023
Ramsha Zia Muhammad Talha Masood Zakir Hussain Usman Liaqat Safina Iram Javed Sajid Hussain Zeeshan Adeel Umar	
Journal of Materials Science: Materials in Electronics, Volume 34, Issue 22, Volume 34, Article Number 1622	
Impact Factor: 2.8 Quartile: 2	
DOI: doi.org/10.1007/s10854-023-11035-z	
Enhanced mechanical properties of surface modified and silica reinforced nomex sandwich composites	2023
Malik Adeel Umer Muhammad Irfan Muhammad Siyar Muhammad Usman Sana Abbasi Muhammad Talha Masood	
Materials Today Communications , Volume 36, Article Number 106346	
Impact Factor: 3.8 Quartile: 2 Citations: 2	

In-situ synthesis of crystalline MoS₂@ZIF-67 nanocomposite for efficient removal of Methyl Orange Dye from aqueous media 2023

Tahreem Haq Nawz Muhammad Talha Masood Amna Safdar Muhammad Shahid Tayyaba Noor Muzammil Hussain Ayesha Razi Malik Adeel Umer
Micromachines , Volume 14(8), Article Number 1534

Impact Factor: 3.4 | **Quartile:** 2 | **Citations:** 6

DOI: <https://doi.org/10.3390/mi14081534>

The Potential Effect of Annealing Mesostructured Titanium Dioxide Electrode in a Closed Box Furnace on the Concentration of Lead (II) Iodide Solution Required for Optimal Performance of Mesoscopic Perovskite Solar Cells 2022

Muhammad Talha Masood Amna Safdar Aftab Akram Sofia Javed Syeda Qudsia
Crystals , Volume 12, Issue 6, Article Number 833

Impact Factor: 2.670 | **Quartile:** 2 | **Citations:** 1

DOI: <https://doi.org/10.3390/cryst12060833>

Extraction current transients for mobility determination-A comparative study 2020

Staffan Dahlström Christian Ahläng Kaj Jansson Axel Luukkonen Muhammad Talha Masood Kim Björkström Sofia Forsblom Benjamin Granroth Julie Poulizac Syeda Qudsia Mathias Nyman
AIP Advances , Volume 10, Article Number 065203

Impact Factor: 1.548 | **Quartile:** 4 | **Citations:** 9

DOI: <https://doi.org/10.1063/5.0008802>

Investigation of Well-Defined Pinholes in TiO₂ Electron Selective Layers Used in Planar Heterojunction Perovskite Solar Cells 2020

Muhammad Talha Masood Syeda Qudsia Mahboubah Hadadian Christian Weinberger Mathias Nyman Christian Ahläng Staffan Dahlström Maning Liu Paola Vivo Ronald Österbacka Jan-Henrik Smått
Nanomaterials , Volume 10(1), Article Number 181

Impact Factor: 5.076 | **Quartile:** 2 | **Citations:** 21

DOI: <https://doi.org/10.3390/nano10010181>

Influence of titanium dioxide surface activation on the performance of mesoscopic perovskite solar cells 2019

Muhammad Talha Masood Christian Weinberger Syeda Qudsia Emil Rosqvist Oskar J. Sandberg Mathias Nyman Simon Sanden Paola Vivo Kerttu Aitola Peter D. Lund Ronald Osterbacka Jan-Henrik Smatt
Thin Solid Films , Volume: 686, Article Number: UNSP 137418

Impact Factor: 2.030 | **Quartile:** 3 | **Citations:** 4

DOI: DOI:10.1016/j.tsf.2019.137418

Impact of Film Thickness of Ultrathin Dip-Coated Compact TiO₂ Layers on the Performance of Mesoscopic Perovskite Solar Cells 2017

Jawad Sarfraz Simon Sandén Paola Vivo Peter D Lund Jan-Henrik Smått Muhammad Talha Masood Christian Weinberger Emil Rosqvist Oskar J Sandberg Ghufra Hashmi Ronald Österbacka
ACS Applied Materials and Interfaces , Volume 9(21), Pages 17906-17913

Impact Factor: 8.097 | **Quartile:** 1 | **Citations:** 39

DOI: doi:10.1021/acsami.7b02868

Influence of TiO₂ compact layer precursor on the performance of perovskite solar cells 2017

Paola Vivo Anniina Ojanperä Jan-Henrik Smått Simon Sanden Syed Ghufra Hashmi Kimmo Kaunisto Petri Ihalainen Muhammad Talha Masood Ronald Österbacka Peter D. Lund Helge Lemmetyinen
Organic Electronics , Volume 41, Pages 287-293

Impact Factor: 3.680 | **Quartile:** 1 | **Citations:** 38

DOI: DOI:10.1016/j.orgel.2016.11.017

Conference Proceedings

Effect of Annealing Temperature on the Morphology, Structure and Optical Properties of Spin-Coated SnO₂ Films for Solar Cell Application 2023

Sumbal Hakeem Talha Masood Sofia Javed Saqib Ali Muhammad Arman Liaqat Ayesha Jamshed Maryam Basit
6th Conference on Emerging Materials and Processes 23, res.country(177,)

Citations: N/A

DOI: <https://doi.org/10.3390/materproc2024017028>