

Muhammad Siyar

Assistant Professor
School of Chemical & Materials Engineering

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About

Dr. Muhammad Siyar is working as Assistant Professor in the School of Chemical & Materials Engineering. Dr. Muhammad Siyar has a PhD in Material Science And Engineering. Dr. Muhammad Siyar has published 24 research articles & conference papers having a citation count of 188, carried out 3 projects and filed 0 intellectual property.

Qualifications

PhD in Material Science And Engineering Seoul National University , Korea	2014 - 2019
MS in Materials And Surface Engineering NUST, Islamabad , Pakistan	2011 - 2013
BSc in Chemical Engineering UET Peshawar , Pakistan	2006 - 2010

Experience

Assistant Professor School of Chemical & Materials Engineering	2024- Present
Assistant Professor School of Chemical & Materials Engineering	2023 - 2023
Assistant Professor School of Chemical & Materials Engineering	2020 - 2024
Assistant Professor School of Chemical & Materials Engineering	2019 - 2020
Trainee Engineer Premier Sugar Mills Mardan KPK , Premier Sugar Mills Mardan KPK	2010 - 2011

Awards

TA ship during MS studies

Professional Memberships

PEC	Since 2020
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Research Projects

National Projects

Integrated Design, Fabrication and Optimization of Bioreactors for Biopharmaceutical Applications Funding Agency: NUST Amount: PKR 1,000,000.00 Status: Approved_inprocess	2024
Integrated Conductive Polymers-Coated Sulfur Enriched Porous Carbons with Single Walled Carbon Nanotubes as Self-Supported and Flexible Cathodes for Lithium-Sulfur Batteries Funding Agency: HEC Amount: PKR 469,000.00 Status: Approved_inprocess	2023
Development of smart self-healing corrosion protection coating for 7xxxx Alloys Funding Agency: NESCOM Amount: PKR 3,500,000.00 Status: Approved_inprocess	2022

International Projects

Research Articles

Revealing Microstructure and Electrochemical Corrosion Behaviour of CoNiCrAlY Coatings Fabricated by Supersonic Plasma Spraying <i>Muhammad Ilyas Kashif Mehmood Malik Adeel Umer Abdullah Cahit Karaoglanli Humaira Kousar Muhammad Siyar Ahmed Umar Munawar JOM , Volume: 76, Pages: 3935-3944</i> Impact Factor: 2.100 Quartile: 2 Citations: 2 DOI: https://doi.org/10.1007/s11837-024-06672-6	2024
Incorporating Controlled Porosity in a Cu2SnSe3 Material To Enhance Its Thermoelectric Properties <i>Muhammad Siyar Malik Adeel Umer Umar Ijaz Chan Park Muhammad Ishaq Yue-xing Chen Zhuang-hao Zheng ACS Applied Energy Materials , Volume 6, Issue 24, Pages 12353-12363</i> Impact Factor: 5.400 Quartile: 2 Citations: 5 DOI: https://doi.org/10.1021/acsam.3c02172	2023
Tuning the electronic properties in facile in-situ solution synthesis of SnSe2/rGO nanocomposites with enhanced thermoelectric performance <i>Haad Khan Muhammad Siyar Chan Park Farhan Javaid Malik Adeel Umer Woochan Jin Mohsin Saleem Adnan Journal of Materials Research , Volume 38, Pages 3913-3922</i> Impact Factor: 2.7 Quartile: 3 Citations: 5 DOI: 10.1557/s43578-023-01112-8	2023
Enhanced mechanical properties of surface modified and silica reinforced nomex sandwich composites <i>Malik Adeel Umer Muhammad Irfan Muhammad Siyar Muhammad Usman Sana Abbasi Muhammad Talha Masood Materials Today Communications , Volume 36, Article Number 106346</i> Impact Factor: 3.8 Quartile: 2 Citations: 2 DOI: 10.1016/j.mtcomm.2023.106346	2023
Thermochromic properties of ZnO/VO2/ZnO films on soda lime silicate glass deposited by RF magnetron sputtering <i>Woochan Jin Kyounghee Park Jun Young Cho Sung-Hwan Bae Muhammad Siyar Hyejin Jang Chan Park Ceramics International , Volume 49, Issue 7, Pages 10437-10444</i> Impact Factor: 5.2 Quartile: 1 Citations: 19 DOI: 10.1016/j.ceramint.2022.11.226	2022
Controlled Morphology and Its Effects on the Thermoelectric Properties of SnSe2 Thin Films <i>Muhammad Siyar Maroosha Farid Haad Khan Malik Adeel Umer Waqas Hassan Amna Safdar Crystals , Volume 11(8), Article Number 942</i> Impact Factor: 2.589 Quartile: 1 Citations: 5 DOI: 10.3390/cryst11080942	2021
Graphene to Advanced MoS2: A Review of Structure, Synthesis, and Optoelectronic Device Application <i>Amna safdar Tahreem Haq Nawz Muzammil Hussain Dae Sung Lee Muhammad Siyar</i>	2020

Crystals , Volume 10(10), Article Number 902

Impact Factor: 2.589 | **Quartile:** 2 | **Citations:** 55

DOI: 10.3390/cryst10100902

Effect of sintering pressure on electrical transport and thermoelectric properties of polycrystalline SnSe

2020

Jun-Young Cho Muhammad Siyar S H Bae J S Mun M Y Kim S H Hong C Park

Bulletin of Materials Science , Volume 43, Article Number 63

Impact Factor: 1.783 | **Quartile:** 4 | **Citations:** 12

DOI: 10.1007/s12034-020-2036-5

Electrical Transport and Thermoelectric Properties of SnSe-SnTe Solid Solution

2019

Jun-Young Cho Muhammad Siyar Woo Chan Jin Euyheon Hwang Seung-Hwan Bae Seong-Hyeon Hong Miyoung Kim Chan Park

Materials , Vol.12(23), Article Number 3854

Impact Factor: 3.057 | **Quartile:** 2

DOI: <https://doi.org/10.3390/ma12233854>

Thermoelectric Properties of Cu₂SnSe₃-SnS Composite

2019

Muhammad Siyar Jun-Young Cho Woo-Chan Jin Euy Heon Hwang Miyoung Kim Chan Park

Materials , Volume: 12, Issue: 13, Article Number: 2040

Impact Factor: 3.057 | **Quartile:** 2 | **Citations:** 9

DOI: DOI:10.3390/ma12132040

The Effect of Substrate Temperature on the Microstructure and Thermoelectric Properties of Pulsed Laser Deposited Cu₂SnSe₃ Thin Film

2019

Muhammad Siyar Jun-Young Cho Woo-Chan Jin Jamil-Ur-Rehman Chan Park

Journal of Nanoelectronics and Optoelectronics, Volume 14, Pages 1–6

Impact Factor: 0.771 | **Quartile:** 4

DOI: 10.1166/jno.2019.2561

Effect of annealing temperature on the phase transition, band gap and thermoelectric properties of Cu₂SnSe₃

2018

MUHAMMAD SIYAR Jun-Young Cho Yong Youn Seungwu Han Miyoung Kim Sung-Hwan Bae Chan Park

Journal of Materials Chemistry C , Volume: 6, Issue: 7, Pages: 1780-1788, Published: 21 Feb 2018

Impact Factor: 6.641 | **Quartile:** 1 | **Citations:** 38

DOI: 10.1039/c7tc05180h

Structural Properties and Mechanical Characterizations of Graphene Based Cobaltferrites Nanocomposites for Load Baring Applications

2014

Muhammad Siyar Nasir Khan Asghari Maqsood Muhammad Younas Muhammad Daud

International Journal of Scientific & Engineering Research, Volume 5, Issue 7, Pages: 376-380

Impact Factor: N/A

DOI: <https://api.semanticscholar.org/CorpusID:212509508>

Synthesis of mono layer graphene oxide from sonicated graphite flakes and their Hall effect measurements

2014

MUHAMMAD SIYAR ASGHARI MAQSOOD SADAF BASHIR KHAN

Materials Science-Poland , Volume 32, Issue 2, Pages 292-296

Impact Factor: 0.507 | **Quartile:** 4 | **Citations:** 9

DOI: 10.2478/s13536-013-0189-2

Conference Proceedings

- The effect of SnS addition to Cu₂SnSe₃ on the thermoelectric properties of Cu₂SnSe₃-SnS composites** 2018
MUHAMMAD SIYAR Jun-Young Cho Chan Park
2018 Fall Meeting of The Korean Ceramic Society, res.country(121,)
Citations: N/A
DOI: N/A
- Mesoporous bulk Cu₂SnSe₃ thermoelectric compound with reduced thermal conductivity, synthesized by top-down approach** 2018
MUHAMMAD SIYAR Jun Young Cho Chan Park
IUMRS-ICEM-2018, res.country(120,)
Citations: N/A
DOI: N/A
- Effect of annealing temperature on phase transition, band gap and thermoelectric properties of Cu₂SnSe₃** 2018
MUHAMMAD SIYAR Jun-Young Cho Yong Youn Seungwu Han Jin-Sang Kim Chan Park
Electroceramics XVI-2018, res.country(20,)
Citations: N/A
DOI: N/A
- Synthesis of porous Cu₂SnSe₃ compound to optimize thermal and electrical conductivities for the efficient thermoelectric devices, using spark plasma sintering** 2017
MUHAMMAD SIYAR Jun-Young Cho Jae-Hyeon Nam Jong-Hun Ryu Sang-Gu Ji Chan Park
2017 Fall Meeting of The Korean Ceramic Society, res.country(121,)
Citations: N/A
DOI: N/A
- Effect of spark-plasma-sintering temperature on the thermoelectric properties of Cu₂SnSe₃ Chalcogenides** 2017
MUHAMMAD SIYAR Jun-Young Cho Jae-Hyeon Nam Jong-hun Ryu Chan Park
Materials Challenges in Alternative and Renewable Energy, res.country(121,)
Citations: N/A
DOI: N/A
- Thermoelectric properties of Cu₂SnSe₃ thin films, synthesized via PLD with different substrate temperature** 2016
MUHAMMAD SIYAR Jun-Young Cho Jang-Won Han Jaehyeon Nam Chan Park
20th International Vacuum Congress (IVC-20), res.country(121,)
Citations: N/A
DOI: N/A
- The effect of sintering temperature on microstructure and Thermoelectric properties of Cu₂SnSe₃ bulk materials** 2015
MUHAMMAD SIYAR Jun-Young Jang-Won Han Jaehyeon Nam Chan Park
1st International Symposium on Emerging Functional materials (IEFM 2015), res.country(121,)
Citations: N/A
DOI: N/A

Book Chapters

- Development of Graphene based Cobalt-ferrites nanocomposites for microwave shielding** 2021
Muhammad Siyar Asghari Maqsood
In: *Ferrites (Synthesis and Applications)*, Chapter 6, Pages 1-12
Citations: N/A
DOI: 10.5772/intechopen.99849

Editorial Activities

Symmetry Reviewed Papers for Journals Impact Factor: 3.06	2024
Advanced Materials Reviewed Papers for Journals Impact Factor: 28.44	2024
Advanced Materials Reviewed Papers for Journals Impact Factor: 28.44	2024
Crystals Reviewed Papers for Journals Impact Factor: 2.4	2024
Advanced Energy Conversion Materials Reviewed Papers for Journals Impact Factor: N/A	2024
Symmetry Reviewed Papers for Journals Impact Factor: 2.9	2024
ACS Omega Reviewed Papers for Journals Impact Factor: 3.75	2024
Materials Reviewed Papers for Journals Impact Factor: 3.4	2023
Crystals Reviewed Papers for Journals Impact Factor: 2.7	2023
AIP Advances Reviewed Papers for Journals Impact Factor: 1.697	2023
 Reviewed Papers for Journals Impact Factor: 3.9	2023
Materials Reviewed Papers for Journals Impact Factor: 3.4	2022