### **KHURRAM YAQOOB**

#### Professor

School of Chemical & Materials Engineering

Email: khurram.yaqoob@scme.nust.edu.pk

Contact: 0518734106

LinkedIn:



### **About**

Dr. KHURRAM YAQOOB is working as Professor in the School of Chemical & Materials Engineering. Dr. KHURRAM YAQOOB has a PhD in Materials Science. Dr. KHURRAM YAQOOB has published 46 research articles & conference papers having a citation count of 958, carried out 7 projects and filed 0 intellectual property.

#### Qualifications

PhD in Materials Science Université Val-de-Marne (Paris XII) , France	2009 - 2012
MS in Materials Science Université Paul Sabatier (Toulouse III) , France  BE in Metallurgical And Materials Engineering UET Lahore , Pakistan	2008 - 2009
	2003 - 2007
Experience	
Professor School of Chemical & Materials Engineering	2024- Present
Associate Professor School of Chemical & Materials Engineering	2019 - 2019
Assistant Professor School of Chemical & Materials Engineering	2013 - 2013
Assistant Professor School of Chemical & Materials Engineering	2013 - 2019
Awards	
Best Researcher of SCME Best Researcher of SCME for the year 2017-2018	2018
Best oral presentation - Best oral presentation award on the 2016 Fall KIM+ conference in Busan, South Korea	2016
Best poster presentation - Best poster presentation award on the 2016 Fall KIM+ conference in Busan, South Korea	2016
Best poster presentation - Best poster presentation award on the 2016 ISMANAM conference in Nara, Japan	2016
Best oral presentation - Best oral presentation award on the 2016 spring KIM+ conference at Gyeongju, South Korea	2016

# PEC

**Professional Memberships** 

# **Research Projects**

National Projects	
4th ASEAN-Pakistan Conference on Materials Science (APCoMS 2025) Funding Agency: ASEAN Pakistan Collaboration Fund	2025
Amount: PKR 24,780,568.00 Status: Approved inprocess	
Establishment of Centre of Research in Surface Engineering (CoRiSE), NUST, Islamabad	2024
Funding Agency: Ministry of Science and Technology	
Amount: PKR 1,271,219,000.00 Status: Approved_inprocess	
Enhancing export potential of locally developed implants by designing and developing hybrid coated	2022
micro porous titanium based implant materials capable of reducing/overcoming stress shielding and aseptic loosening in orthopedic implants	
Funding Agency: PSF	
Amount: PKR 13,596,000.00	
Status: Completed	
Development of TIB2 Cu, Ni composites Funding Agency: NESCOM	2020
Amount: PKR 400,000.00	
Status: Completed	
Development of TiB2 (Cu, Ni) Composite	2019
Funding Agency: NESCOM Amount: PKR 400,000.00	
Status: Completed	
Development and characterization of high entropy foams for structural applications	2017
Funding Agency: HEC	
Amount: PKR 14,000,000.00	
Status: Completed	
Indigenous fabrication of Al2O3 Ceramic Tiles for Ballistic Armour  Funding Agency: HEC	2018
Amount: PKR 13,410,000.00	
Status: Completed	
International Projects	
Research Articles	
Semi-coherent and coherent nanoprecipitation induced superior strength-ductility combination in additively manufactured CoCrMoW alloy	2026
Canjuan Xiao Weijin Cai Ruidi Li Song Ni Wenting Jiang Zhangwei Wang KHURRAM YAQOOB Zibin Chen Yi Huang Min Song	
Journal of Materials Science & Technology, Volume:242, Pages 1-14	
Impact Factor: 14.3000   Quartile: 1  DOI: https://doi.org/10.1016/j.jmst.2025.02.100	
Nitrogen alloyed MoSe2 coatings – Role of optimized morphology, structure and mechanical properties	2025
on diverse environment sliding performance	
Talha Bin Yaqub Irfan Nadeem Filipe Fernandes KHURRAM YAQOOB Mitjan Kalin Albano Cavaleiro Tribology International , Volume 209, Article Number 110716	
Impact Factor: 6.900   Quartile: 1	
<b>DOI:</b> https://doi.org/10.1016/j.triboint.2025.110716	
Thermal Stability and Strengthening Effect of Coherent Precipitates in a (FeCoNi)92Al2.5Ti5.5 High Entropy Alloy	2024
Yuqi Liu Feng Wang Songyang Chen Hul Wang Zhiping Xiong Khurram Yaqoob Zhangwei Wang Min Song	
Acta Metallurgica Sinica (English Letters), Pages 1-10	
Impact Factor: 2.900   Quartile: 2   Citations: 4  DOI: https://doi.org/10.1007/s40195-024-01727-8	
DOI: 11(pos/200.01g/10.1001/540100.024.01121.0	

Design and development of porous CoCrFeNiMn high entropy alloy (Cantor alloy) with outstanding 2024 electrochemical properties Talha Abid M. Aftab Akram Talha Bin Yaqub M. Ramzan Abdul Karim Filipe Fernandes Muhammad Farooq Zafar Khurram Yaqoob Journal of Alloys and Compounds, Volume 970, Article Number 172633 Impact Factor: 6.2 | Quartile: 1 | Citations: 17 DOI: https://doi.org/10.1016/j.jallcom.2023.172633 2023 Design and development of NbTiVZr porous high entropy alloys for energy applications Talha Abid Muhammad Aftab Akram Talha Bin Yaqub M. Ramzan Abdul Karim Filipe Fernandes Rizwan Khan KHURRAM YAQOOB Ayesha Siddique Journal of Energy Storage, Volume 73, Part C, Article Number 109131 Impact Factor: 9.4 | Quartile: 1 | Citations: 5 DOI: https://doi.org/10.1016/j.est.2023.109131 Development of eutectic high entropy alloy by addition of W to CoCrFeNi HEA 2023 M. Abdullah M. Mukarram Talha bin Yaqub Filipe Fernandes KHURRAM YAQOOB International Journal of Refractory Metals and Hard Materials, Volume 115, Article Number: 106300 Impact Factor: 4.804 | Quartile: 1 | Citations: 21 DOI: 10.1016/j.ijrmhm.2023.106300 Ultrasounds-assisted solvothermal synthesis of Ni-Co-Mn MOFs/PANI-CNTs nanocomposites with 2023 enhanced electrochemical energy storage performance Wajahat Khalid Muhammad Ramzan Abdul Karim Muhammad Atif Waseem Shehzad Mohsin Ali Marwat KHURRAM YAQOOB Energy and Environment, Pages 1-16 Impact Factor: 4.2 | Quartile: 2 | Citations: 5 DOI: https://doi.org/10.1177/0958305X231196126 2023 Chemically Activated Carbon Synthesized from Rice Husk for Adsorption of Methylene Blue in Polluted Water Arshad Hussain Wazir Inam Ullah khurram yaqoob Environmental Engineering Science, Volume:40, Issue:8, Page:307-317 Impact Factor: 1.8 | Quartile: 4 | Citations: 11 DOI: 10.1089/ees.2022.0373 2023 Characterization of chemical short-range order in VCoNi medium-entropy alloy processed by spark plasma sintering Weijin Cai Junyang He Li Wang Wenchao Yang Xianggi Xu KHURRAM YAQOOB Zhangwei Wang Min Song Scripta Materialia, Volume 231, Article Number 115463 Impact Factor: 6.302 | Quartile: 1 | Citations: 24 DOI: https://doi.org/10.1016/j.scriptamat.2023.115463 Development and characterization of boride-reinforced CoCrFeNi composites 2023 M. Adil Mehmood Muhammad Mujahid Andy Godfrey Muhammad Farooq Zafar KHURRAM YAQOOB Journal of Alloys and Compounds, Volume 947, Article Number 169535 Impact Factor: 6.371 | Quartile: 1 | Citations: 12 DOI: https://doi.org/10.1016/j.jallcom.2023.169535 Superior strength-ductility combination in Al alloys via dislocation gradient structure 2023 Feng Wang Yue Li Xinren Chen HuanZhao KHURRAM YAQOOB Yong Du Zhangwei Wang Min Song Materials Research Letters, Volume 11, No. 5, Pages 347-353 Impact Factor: 8.516 | Quartile: 1 | Citations: 21 DOI: https://doi.org/10.1080/21663831.2022.2151851 2023 Microstructure and mechanical properties of hot isostatic pressed tungsten heavy alloy with FeNiCoCrMn high entropy alloy binder Zahid Anwer Malik Adeel Umer Fatima Nisar Muhammad Arslan Hafeez KHURRAM YAQOOB Xian Luo Iftikhar Ahmad Journal of Materials Research and Technology, Volume 22, Pages 2897-2909 Impact Factor: 6.267 | Quartile: 1 | Citations: 28 DOI: https://doi.org/10.1016/j.jmrt.2022.12.078 A Novel Method For The Production Of Titanium Foams To Reduce Stress Shielding In Implants 2023 KHURRAM YAQOOB Izza Amjad Muhammad Awais Munir Awan Muhammad Zahoor Usman Liaqat Muhammad Kashif ACS Omega, Volume 8, Issue 2, Pages 1876-1884 Impact Factor: 4.132 | Quartile: 2 | Citations: 15 **DOI:** https://doi.org/10.1021/acsomega.2c02340

Ceramic-reinforced HEA matrix composites exhibiting an excellent combination of mechanical properties	2022
M. Adil Mehmood Khurram Shehzad Muhammad Mujahid Talha bin Yaqub Andy Godfrey Filipe Fernandes F. Z. Muhammad KHURRAM YAQOOB Scientific Reports, Volume 12, Article Number 21486  Impact Factor: 4.996   Quartile: 2   Citations: 15  DOI: https://doi.org/10.1038/s41598-022-25734-w	
Impact Energy Absorption Analysis of Shape Memory Hybrid Composites  Huma Ozair Muhammad Atiq Ur Rehman Abrar H. Baluch KHURRAM YAQOOB Ibrahim Qazi Abdul Wadood  Journal of Composites Science, Volume 6(12), Article Number 365	2022
Impact Factor: N/A   Citations: 1 DOI: doi.org/10.3390/jcs6120365	
Combination of laser-induced breakdown spectroscopy, and time-of-flight mass spectrometry for the	2022
quantification of CoCrFeNiMo high entropy alloys Usman Liaqat KHURRAM YAQOOB Amir Fayyaz Rizwan Ahmed Zeshan A. Umar M. Aslam Baig Spectrochimica Acta - Part B Atomic Spectroscopy,, Volume 198, Article Number 106562	
Impact Factor: 3.662   Quartile: 1   Citations: 14  DOI: https://doi.org/10.1016/j.sab.2022.106562	
Vacuum Tribological Properties of W-S-N Coatings Synthesized by Direct Current Magnetron	2022
Sputtering  Talha Bin Yaqub KHURRAM YAQOOB Amir Mukhtar Filipe Fernandes Andrey Bondarev Fábio Ferreira Abbas AL-Rjoub Albano Cavaleiro  Coatings, Volume 12, Issue 11, Article Number 1646  Impact Factor: 3.236   Quartile: 2   Citations: 2	
<b>DOI:</b> https://doi.org/10.3390/coatings12111646	
Failure analysis of cartridge brass shell  KHURRAM YAQOOB Fahim Hashmi Waqas Hassan  Engineering Failure Analysis , Volume 138, Article Number 106325  Impact Factor: 3.634   Quartile: 2   Citations: 9  DOI: https://doi.org/10.1016/j.engfailanal.2022.106325	2022
Microstructural evolution and mechanical characterization of a WC-reinforced CoCrFeNi HEA matrix	2022
Composite  Syed Waqas Hussain M. Adil Mehmood M. Ramzan Abdul Karim Andy Godfrey KHURRAM YAQOOB  Scientific Reports, Volume 12, Issue 1, Article Number 9822  Impact Factor: 4.996   Quartile: 2   Citations: 24  DOI: https://doi.org/10.1038/s41598-022-13649-5	
Effect of Annealing Heat Treatment on the Composition, Morphology, Structure and Mechanical	2022
Properties of the W-S-N Coatings  Talha Bin Yaqub Abbas Al-Rjoub Hafiza Ayesha Khalid KHURRAM YAQOOB Filipe Fernandes Albano Cavaleiro  Materials, Volume 15, Issue 12, Article number 4088  Impact Factor: 3.748   Quartile: 1   Citations: 1  DOI: https://doi.org/10.3390/ma15124088	
Solvothermal Synthesis of Flower-Flakes Like Nano Composites of Ni-Co Metal Organic Frameworks and Graphene Nanoplatelets for Energy Storage Applications	2022
Muhammad Ramzan Abdul Karim Muhammad Noman Khurram Imran Khan Waseem Shehzad Ehsan Ul Haq Nadia Shahzad KHURRAM YAQOOB ECS Journal of Solid State Science and Technology, Volume 11, Number 1, Article Number 011001  Impact Factor: 2.070   Quartile: 3   Citations: 22  DOI: 10.1149/2162-8777/ ac44f8	
Removal of levofloxacin from aqueous solution by green synthesized magnetite (Fe3O4) nanoparticles	2021
using Moringa olifera: Kinetics and reaction mechanism analysis Sikandar Altaf Rabeea Zafar Waqas Qamar Zaman Shakil Ahmad KHURRAM YAQOOB Asad Syed Asim Jahangir Khan Muhammad Bilal Muhammad Arshad	d
Ecotoxicology and Environmental Safety, Volume 226, Article Number 112826  Impact Factor: 6.291   Quartile: 1   Citations: 82  DOI: 10.1016/j.ecoenv.2021.112826	

2021

Systematic Development of Eutectic High Entropy Alloys by Thermodynamic Modeling and

Muhammad Mukarram M. Awais Munir Muhammad Mujahid KHURRAM YAQOOB

Experimentation: An Example of the CoCrFeNi-Mo System

*Metals*, Volume 11, Issue 9, Article Number 1484 Impact Factor: 2.695 | Quartile: 2 | Citations: 16

DOI: doi.org/10.3390/met11091484

Superior performance of electrodeposited CoMnS as novel electrode material for supercapattery

devices

Syed Shabhi Haider Muhammad Zahir Iqbal Sana Zakar Amir Muhammad Afzal KHURRAM YAQOOB Sikandar Aftab

Journal of Energy Storage, Volume 39, Article Number 102608

Impact Factor: 6.583 | Quartile: 1 | Citations: 25 **DOI:** https://doi.org/10.1016/j.est.2021.102608

TiO2 nanoparticles dose, application method and phosphorous levels influence genotoxicity in Rice

2021

(Oryza sativa L.), soil enzymatic activities and plant growth

S. Phziya Tariq Waani Shagufta Irum Iram Gul KHURRAM YAQOOB Muhammad Usman Khalid Muhammad Arif Ali Umair Manzoor Tayyaba Noor Shafagat

Ali Muhammad Rizwan Muhammad Arshad

Ecotoxicology and Environmental Safety, Volume 213, Article Number 111977

Impact Factor: 6.291 | Quartile: 1 | Citations: 50 DOI: https://doi.org/10.1016/j.ecoenv.2021.111977

Design and development of CoCrFeNiTa eutectic high entropy alloys

2021

Muhammad Mukarram Mohammad Mujahid KHURRAM YAQOOB

Journal of Materials Research and Technology, Volume 10, Pages 1243-1249

Impact Factor: 5.039 | Quartile: 2 | Citations: 64 DOI: https://doi.org/10.1016/j.jmrt.2020.12.042

Lead phytoextraction by Pelargoniumhortorum: Comparative assessment of EDTA and DIPA for Pb

2020

mobility and toxicity

Muhammad Arshad Neelam Naqvi Iram Gul Khurram Yaqoob Muhammad Bilal Jean Kallerhoff

Science of the Total Environment, Volume 748, Article Number 141496

Impact Factor: 6.551 | Quartile: 1 | Citations: 54

DOI: 10.1016/j.scitotenv.2020.141496

Phosphoric Acid Activated Carbon from Melia azedarach Waste Sawdust for Adsorptive Removal of

2020

Reactive Orange 16: Equilibrium Modelling and Thermodynamic Analysis

Jehanzeb Ali Shah Tayyab Ashfaq Butt Cyrus Raza Mirza Ahson Jabbar Shaikh Muhammad Saqib Khan Muhammad Arshad Nadia Riaz Hajira Haroon Syeo

Mubashar Hussain Gardazi KHURRAM YAQOOB Muhammad Bilal

*Molecules*, Volume 25(9), Article Number 2118

Impact Factor: 4.412 | Quartile: 2 | Citations: 28

**DOI:** 10.3390/molecules25092118

Binary composites of strontium oxide/polyaniline for high performance supercapattery devices

2020

Muhammad Zahir Iqbal Shahid Alam Amir Muhammad Afzal Muhammad Javaid Iqbal KHURRAM YAQOOB Muhammad Arshad Kamran Muhammad

Ramzan Abdul Karim Thamer Alherbi

Solid State ionics , Volume 347, Article Number 115276

**Impact Factor:** 3.785 | **Quartile:** 2 | **Citations:** 57 **DOI:** https://doi.org/10.1016/j.ssi.2020.115276

Novel Strategy for Synthesis of Al Powder Comprising of Al Nanoflakes Via Ultrasonication of Al Foil

2020

Mubeen Hanif KHURRAM YAQOOB Malik Adeel Umer Zakir Hussain

Ultrasonics Sonochemistry, Volume 61, Article Number 104838

Impact Factor: 7.491 | Quartile: 1 | Citations: 6

DOI: https://doi.org/10.1016/j.ultsonch.2019.104838

Effect of austempering conditions on the microstructure and mechanical properties of AISI 4340 and

2019

AISI 4140 steels

Mian Muhammad Bilal KHURRAM YAQOOB Mohammad Hammad Zahid Ehsan ul haq Waqas Hassan Tanveer Abul Wadood Bilal Ahmed

Journal of Materials Research and Technology, Vol.8(6), Pages 5194-5200

Impact Factor: 5.289 | Quartile: 1 | Citations: 52 DOI: https://doi.org/10.1016/j.jmrt.2019.08.042

Synthesis and Characterization of Carbon Micro Balls from Graphite by the Arc Discharge Method

2019

Arshad Hussain Wazir Abdul Manan Mu rad Khan Imdad Ullah Qurashi Wahib Noor Khan KHURRAM YAQOOB Safeer Ahmad

Pakistan Journal of Analytical & Environmental Chemistry, Volume 20, Issue 1, Pages 88-92

Impact Factor: 0 | Citations: 2 **DOI:** 10.21743/pjaec/2019.06.12

2021

Comparative effectiveness of organic and inorganic amendments on cadmium bioavailability and 2019 uptake by Pelargonium hortorum Iram Gul Maria Manzoor Nosheen Hashim KHURRAM YAQOOB Jean Kallerhoff Muhammad Arshad Journal of Soils and Sediments, Volume 19, Issue 5, pp 2346-2356 Impact Factor: 2.763 | Quartile: 2 | Citations: 27 DOI: 10.1007/s11368-018-2202-1 2019 Effect of rare earth and transition metal La-Mn substitution on electrical properties of co-precipitated Mtype Ba-ferrites nanoparticles KHURRAM YAQOOB Muhammad Ayub Iftikhar Hussain Gul Khalid Nawaz Journal of Rare Earths, Volume 37, Issue 2, Pages 193-197 Impact Factor: 3.104 | Quartile: 2 | Citations: 31 DOI: https://doi.org/10.1016/j.jre.2018.08.005 Thermodynamic modeling of the Mo?Ni system 2018 KHURRAM YAQOOB Jean-ClaudeCrivello Jean-Marc Joubert Calphad, Volume 62, Pages 215-222 Impact Factor: 2.652 | Quartile: 1 | Citations: 12 DOI: https://doi.org/10.1016/j.calphad.2018.07.002 Experimentation and Modelling of Nanostructured Nickel Cermet Anodes for Submicron SOFCs Fuelled 2018 **Indirectly by Industrial Waste Carbon** Waqas Hassan Tanveer Hiroshi Iwai Wonjong Yu Arunkumar Pandiyan Sanghoon Ji Yoon Ho Lee Yeageun Lee KHURRAM YAQOOB Gu Young Cho Suk Won Cha Journal of Materials Chemistry A, online Impact Factor: 10.733 | Quartile: 1 | Citations: 9 DOI: 10.1039/C7TA10273A Experimental and theoretical correlation of reinforcement trends in acrylonitrile butadiene 2018 styrene/single-walled carbon nanotubes hybrid composites Ahmad Nawaz Khan Qaiser Waheed Rahim Jan KHURRAM YAQOOB Zulfigar Ali Iftikhar Hussain Gul POLYMER COMPOSITES, Volume: 39 Pages: E902-E908 Supplement: 2 Special Issue: SI Impact Factor: 2.268 | Quartile: 2 | Citations: 11 DOI: 10.1002/pc.24321 Synthesis and characterization of electrodeposited NiO thin film on electrode grade carbon plate for 2017 supercapacitor applications Zakir Hussain Ahmad Nawaz Khan KHURRAM YAQOOB Imran Sohail Materials Research Express, Volume: 4 Issue: 11 Article Number: 116412 Impact Factor: 1.151 | Quartile: 4 | Citations: 17 DOI: 10.1088/2053-1591/aa997a Synthesis of alumino-silicates functionalized titanium as potential adsorbent: An industrial possibility 2017 KHURRAM YAQOOB Fatima Tariq Uzaira Rafique EPITOANYAG - Journal of Silicate Based And Composite Materials, Volume 69, No. 3, Pages 94-97 Impact Factor: 0 DOI: 10.14382/epitoanyag-jsbcm.2017.16 Effect of polyaniline on the dielectric and EMI shielding behaviors of styrene acrylonitrile 2016 KHURRAM YAQOOB Abdul Saboor Hammad M. Cheema Ahmed Shafqat Ahmad Nawaz Khan Journal of Materials Science: Materials in Electronics, Volume 27, Pages:9634-9641 Impact Factor: 2.019 | Quartile: 2 | Citations: 33 DOI: 10.1007/s10854-016-5021-4 CALPHAD description of the Mo–Re system focused on the sigma phase modeling ☆ 2013 R. Mathieu N. Dupin J.-C. Crivello KHURRAM YAQOOB A. Breidi J.-M. Fiorani N. David J.-M. Joubert CALPHAD-COMPUTER COUPLING OF PHASE DIAGRAMS AND THERMOCHEMISTRY, Volume 43, Pages 18-31 Impact Factor: 1.394 | Quartile: 2 | Citations: 48 **DOI:** 10.1016/j.calphad.2013.08.002 2013 A modulated structure derived from the ? phase in the Mo?Ni?Re system KHURRAM YAQOOB Laure Guénée Radovan Cerný Jean-Marc Joubert Intermetallics, Volume 37, Pages 42-45 Impact Factor: 2.119 | Quartile: 1 | Citations: 3 DOI: 10.1016/j.intermet.2013.01.018

Experimental investigation of the Mo-Ni-Re system	2013
KHURRAM YAQOOB Jean-Marc Jouber  Journal of Alloys and Compounds, Volume 559, Pages 101-111  Impact Factor: 2.726   Quartile: 1   Citations: 11  DOI: 10.1016/j.jallcom.2013.01.045	
Experimental determination and thermodynamic modeling of the Ni-Re binary system	2012
KHURRAM YAQOOB Jean-Marc Joubert	
Journal of Solid State Chemistry, Volume 196, Pages 320-325	
Impact Factor: 2.040   Quartile: 2   Citations: 19	
<b>DOI:</b> 10.1016/j.jssc.2012.06.036	
Comparison of the Site Occupancies Determined by Combined Rietveld Refinement and Density	2012
Functional Theory Calculations: Example of the Ternary Mo?Ni?Re? Phase  KHURRAM YAQOOB Jean-Claude Crivello Jean-Marc Joubert  Inorganic Chemistry, Volume 51, Issue 5, Pages 3071-3078	
Impact Factor: 4.593   Quartile: 1   Citations: 29  DOI: 10.1021/ic202479y	
Editorial Activities	
Journal of Alloys and Compounds Communications	2024
Reviewed Papers for Journals	
Impact Factor: 5.8	
Journal of Alloys and Metallurgical Systems	2024
Reviewed Papers for Journals	
Impact Factor: 0.5	
Journal of Materials Research and Technology	2024
Reviewed Papers for Journals	
Impact Factor: 6.4	
Advanced Functional Materials	2024
Reviewed Papers for Journals	
Impact Factor: 18.5	
Journal of Materials Science and Technology	2024
Reviewed Papers for Journals	
Impact Factor: 11.2	