

Ghulam Hussain

Assistant Professor

School of Natural Sciences

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About

Dr. Ghulam Hussain is working as Assistant Professor in the School of Natural Sciences. Dr. Ghulam Hussain has a PhD in Physical Chemistry. Dr. Ghulam Hussain has published 16 research articles & conference papers having a citation count of 348, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Physical Chemistry	2013 - 2017
Curtin University of Technology , Australia	
MS in Physical Chemistry	2010 - 2012
University of Bristol , United Kingdom	
MSc in Physical Chemistry	2007 - 2009
University of the Punjab , Pakistan	
BSc in Science	2005 - 2007
Islamia University of Bahawalpur , Pakistan	

Experience

Assistant Professor	2024- Present
School of Natural Sciences	
Postdoctoral Researcher	2020 - 2021
KTH Royal Institute of Technology Stockholm Sweden , Brinellvägen 8, 114 28 Stockholm, Sweden	
Assistant Professor	2019 - 2020
University of Education Lahore , College Road, Township Block C Phase 1 Johar Town, Lahore, Punjab 54770	
Rutherford Research Fellow	2018 - 2019
University of Aberdeen Scotland , School of Natural and Computing Sciences Meston Building Aberdeen AB24 3UE Scotland UK	
Visiting Research Associate	2017 - 2018
Curtin University Australia , Curtin University, Perth Western Australia	
Sessional Staff Member	2015 - 2017
Curtin University Australia , Curtin University, Perth Western Australia	
Nutritional Officer (BPS-17)	2010 - 2010
Health Department, Govt. of Punjab , Bahawalnagar, Punjab	
Research Assistant	2009 - 2010
Institute of Chemistry University of the Punjab , University of the Punjab Lahore	

Research Articles

Facile Synthesis of Selenium Nanoparticles for Enhanced Oxygen Evolution Reaction: Insights into Electrochemical and Photoelectrochemical Catalysis	2025
Sumaya Ishtiaq Ghulam Hussain Hafiza komal Zafar Rabia Liaquat Abdullah A. Al-Kahtani Ayman Nafady Manzar Sohail Shahid Rasul ACS Omega , Volume 10, Issue 1, Pages 520-528	
Impact Factor: 3.700 Quartile: 2 Citations: 2	
DOI: https://doi.org/10.1021/acsomega.4c07016	
Modelling electrochemical modulation of ion release in thin-layer samples	2021
Andres F. Molina-Osorio Alexander Wiorek Ghulam Hussain Maria Cuartero Gaston A. Crespo Journal of Electroanalytical Chemistry, Volume 903, Article Number 115851	

Impact Factor: 4.598 | **Quartile:** 1 | **Citations:** 6
DOI: <https://doi.org/10.1016/j.jelechem.2021.115851>

Reagentless Acid-Base Titration for Alkalinity Detection in Seawater

Alexander Wiorek Ghulam Hussain Andres F. Molina-Osorio Maria Cuartero Gaston A. Crespo
Analytical Chemistry, Volume:93, Issue:42, Page:14130-14137

Impact Factor: 8.008 | **Quartile:** 1 | **Citations:** 14
DOI: <https://doi.org/10.1021/acs.analchem.1c02545>

Effect of microelectrode array spacing on the growth of platinum electrodeposits and its implications for oxygen sensing in ionic liquids

Junqiao Lee Jesse W. Mullen Ghulam Hussain Debbie S. Silvester
Electrochimica Acta, Volume 384, Article Number 138412
Impact Factor: 7.336 | **Quartile:** 1 | **Citations:** 6
DOI: <https://doi.org/10.1016/j.electacta.2021.138412>

Electrodeposited Metal Organic Framework toward Excellent Hydrogen Sensing in an Ionic Liquid

Muhammad Rizwan Azhar Ghulam Hussain Moses O. Tade Debbie S. Silvester Shaobin Wang
ACS Applied Nano Materials, Volume:3, Issue:5, Page:4376-4385
Impact Factor: 5.097 | **Quartile:** 2 | **Citations:** 32
DOI: <https://doi.org/10.1021/acsanm.0c00503>

Thin films of poly(vinylidene fluoride)-Co-hexafluoropropylene)-ionic liquid mixtures as amperometric gas sensing materials for oxygen and ammonia

Junqiao Lee Ghulam Hussain Nieves López-Salas Douglas R. MacFarlane Debbie S. Silvester
Analyst, Volume:145, Issue:5, Page:1915-1924
Impact Factor: 4.616 | **Quartile:** 1 | **Citations:** 26
DOI: <https://doi.org/10.1039/C9AN02153A>

How cations determine the interfacial potential profile: Relevance for the CO₂ reduction reaction

Ghulam Hussain Laura Pérez-Martínez Jia-Bo Le Marco Papasizza Gema Cabello Jun Cheng Angel Cuesta
Electrochimica Acta, Volume 327, Article Number 135055
Impact Factor: 6.215 | **Quartile:** 1 | **Citations:** 75
DOI: <https://doi.org/10.1016/j.electacta.2019.135055>

Fast responding hydrogen gas sensors using platinum nanoparticle modified microchannels and ionic liquids

Ghulam Hussain Mengchen Ge Chuan Zhao Debbie S. Silvester
Analytica Chimica Acta, Volume 1072, Pages 35-45
Impact Factor: 5.977 | **Quartile:** 1 | **Citations:** 36
DOI: <https://doi.org/10.1016/j.aca.2019.04.042>

Preparation of platinum-based ‘cauliflower microarrays’ for enhanced ammonia gas sensing

Ghulam Hussain Leigh Aldous Debbie S. Silvester
Analytica Chimica Acta, Volume 1048, Pages 12-21
Impact Factor: 5.977 | **Quartile:** 1 | **Citations:** 17
DOI: <https://doi.org/10.1016/j.aca.2018.09.055>

Ionic Liquid-based Microchannels for Highly Sensitive and Fast Amperometric Detection of Toxic Gases

Mengchen Ge Ghulam Hussain D. Brynn Hibbert Debbie S. Silvester Chuan Zhao
Electroanalysis, Volume 31, Issue 1, Pages 66-74
Impact Factor: 2.544 | **Quartile:** 2 | **Citations:** 14
DOI: <https://doi.org/10.1002/elan.201800409>

Modification of microelectrode arrays with high surface area dendritic platinum 3D structures: Enhanced sensitivity for oxygen detection in ionic liquids

Ghulam Hussain Anthony P. O'Mullane Debbie S. Silvester
Nanomaterials, Volume 8, Issue 9, Article Number 735
Impact Factor: 4.034 | **Quartile:** 1 | **Citations:** 11
DOI: <https://doi.org/10.3390/nano8090735>

Comparison of Voltammetric Techniques for Ammonia Sensing in Ionic Liquids

Ghulam Hussain Debbie S. Silvester
Electroanalysis, Volume 30, Issue 1, Pages 75-83

2021

2021

2020

2019

2019

2019

2019

2018

2018

Impact Factor: 2.691 | **Quartile:** 2 | **Citations:** 45

DOI: <https://doi.org/10.1002/elan.201700555>

Detection of sub-ppt Concentrations of Ammonia in an Ionic Liquid: Enhanced Current Density Using

"Filled" Recessed Microarrays

Ghulam Hussain Debbie S. Silvester

Analytical Chemistry, Volume 88, Issue 24, Pages 12453-12460

Impact Factor: 6.320 | **Quartile:** 1 | **Citations:** 32

DOI: <https://doi.org/10.1021/acs.analchem.6b03824>

2016

Charge Generation in Low-Polarity Solvents: Poly(ionic liquid)-Functionalized Particles

Ghulam Hussain Amy Robinson Paul Bartlett

Langmuir, Volume 29, Issue 13, Pages 4204-4213

Impact Factor: 4.384 | **Quartile:** 1 | **Citations:** 25

DOI: <https://doi.org/10.1021/la3049086>

2013

Adsorption of Gold (III) from Aqueous Solutions on Bagasse Ash

Muhammad Ali Khan Ghulam Hussain

Journal of the Chemical Society of Pakistan, Volume 33, Issue 03, Pages 317-323

Impact Factor: 1.377 | **Quartile:** 2

DOI: <https://jcsp.org.pk/issueDetail.aspx?aid=4962ccce-b226-46a0-8ad2-f04ffcb11dd6>

2011