

Resume of #

Dr. Mrs. Naveed Kausar Janjua born on 20-03-1965

Professor (Tenured) since 17-12-2018

FRSC (2022); FCSP (2022)

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Father's name: Muhammad Khan Janjua

Husband' name: Ijaz Hussain Janjua

Home Town, Domicile and Nationality: Khewra, Punjab, Pakistan

Highest Qualification: **Ph.D. in Physical Chemistry**

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Post Doc Research Aailed Post Doc under HEC program for 9 months from Feb, 2012 to Nov, 2012 at JTSI Group, University of St Andrews, Fife, Scotland, United Kingdom. The fuel cell research was explored in many directions starting from slurry formulations of materials, particle sizing with rotary and planetary ball milling, screen printing the electrolyte ink, tape casting of electrodes and fuel cell fabrication, the impregnation of catalytic ions onto these cell parts and, finally fuel cell testing in symmetric and fuel cell modes. Besides, the nanostructures of all synthetic/fabrication steps were elaborated using SEM and XRD techniques. The thin films and fractured cells were observed for the true nanostructures under high magnifications in SEM and correlated with the basic synthetic schemes. Engineering the porosity in anode, cathode, and electrolyte parts of the fuel cell, was also learnt and comprehended with the use of slurry formulations and pore formers.

Enjoying academics and research for the last 33 years. Recent interests include Physical Chemistry: Versatile Nanomaterials; Catalysis; Electrochemistry; Water Electrolysis.

My **research interests** pertain to current and potential applications as well as new methodologies in material science and electrochemistry, including:

- Electrochemistry and fuel cell research with emphasis on SOFCs, PEMFCs
- Electrochemistry and material characterization for SOFCs and fuel cell development
- Designing simple synthesis routes for electroactive nanomaterials for electrodes
- The water contamination problem-solving with simple metal oxides and composites
- Functional nanomaterials like metal oxides for electrochemical applications
- Electrocatalysis using versatile materials.

Associations

- ❖ Head of the Physical section in the Department of Chemistry, Quaid-i-Azam University Islamabad from March 2016 to 31-08-2016 semester & for 08-2019
- ❖ Fellow of The Chemical Society of Pakistan (FCSP) 2022
- ❖ Life member of The Chemical Society of Pakistan (CSP)
- ❖ Fellow of The Royal Society of Chemistry, (FRSC) UK since 2022, Member RSC 2020-21, Associate Member RSC 2014-2019
- ❖ Member of the Pakistan Universities Coordination Council since 1-9-2022
- ❖ Guest Associate Editor in Frontiers under 1) Electrochemistry; 2) Semiconducting Materials and Devices
- ❖ Member of The International Society of Electrochemistry (ISE) US, 2010-2016
- ❖ Member of The American Chemical Society (ACS) 2014- to-2016
- ❖ Member of the Ph.D. Admission Committee of the Department of Chemistry, Quaid-i-Azam University Islamabad, since 2015-to-date
- ❖ Member of the M. Phil. Admission Committee of the Department of Chemistry, Quaid-

- i-Azam University Islamabad, since 2013 -to-date
- ❖ Member of the Departmental Tenure Committee of the Department of Chemistry, Quaid-i-Azam University Islamabad, 2015-to-2018
- ❖ Member of the Quality Enhancement Cell of the Department of Chemistry, Quaid-i-Azam University Islamabad, 2011-to-2019
- ❖ Student Advisor of the Department of Chemistry, Quaid-i-Azam University Islamabad, 2011-2022 (3)
- ❖ Member of the executive council of the Department of Chemistry in Academic Staff Association during 2006 and 2013
- ❖ Member of the Academic Council of the Allama Iqbal Open University Islamabad, 2016-to-date
- ❖ Member of the Academic Council of the Govt. College University Rawalpindi, 2020
- ❖ Member of the TRC of the Shaheed Benazir Bhutto Women University Peshawar, 2019
- ❖ Invited meeting at MoST Islamabad Pakistan on Hydrogen Fuel Energy, June 2013
- ❖ Member of The International Bioelectrochemical Society (BES) for 2010-2012
- ❖ Member of the Faculty Board of Natural Sciences, Quaid-i-Azam University Islamabad, 2006-2009, 2015-to-date
- ❖ Coordinated 20th National and 8th International Chemistry Conference, 15-16th Feb, 2010
- ❖ Coordinated 1st Chemistry Alumni Meeting and Seminar on “Frontiers of Chemistry” in Quaid-i-Azam University Islamabad, 15-16th May, 2009
- ❖ Was Girl-Guide Incharge of Islamabad College for Girls, F-6/2 Islamabad Company during 1997-2000 and worked for social uplift of the society especially for draught-hit Balochistan in that tenure
- ❖ Reviewer of many international research journals including Elsevier, ECS and ACS.

Academic Record

Title of Ph.D. Thesis: “Investigations of application of Buckingham equation in charge transfer complex, 1-ethyl-4-carbomethoxy pyridinium iodide” (Physical Chemistry, the research involved synthesis and ¹H-NMR studies).

Title of M.Phil. Thesis: “Surface tension measurements of binary organic mixtures” (using capillary rise and torsion balance methods)

Ph.D., M.Phil., M.Sc. degrees in Physical Chemistry from Quaid-i-Azam University Islamabad Pakistan in 1999, 1990, 1987, respectively.

Total Experience: ~32 Years

17-12-2018 to-date	Professor (Tenured) , Department of Chemistry, Quaid-i-Azam University, Islamabad
31-05-2014 to-17-12-2018	Associate Professor (Tenured), Department of Chemistry, Quaid-i-Azam University, Islamabad
31-05-2008 to 31-05-2014	Assistant Professor (TTS), Department of Chemistry, Quaid-i-Azam University, Islamabad
14-4-2005 to-31-05-2008	Assistant Professor (BPS), Department of Chemistry, Quaid-i-Azam University, Islamabad
20-10-2000 to 14-4-2005	Assistant Professor, F.G. Margalla College for Women, (Post-Graduate College) F-7/4, Islamabad
22-8-1996 to 20-10-2000	Lecturer, Islamabad College for Girls, (Post-Graduate College) F-6/2, Islamabad
23-10-1990 to 22-8-1996	Scientific Officer BPS 17, NPSL - PCSIR, 16-H/9, Islamabad
16-9-1990 to 18-10-1990	Lecturer (against leave vacancy), F.G. College for Women, (Post-Graduate College) F-7/2, Islamabad

R & D / Teaching Experience: Theory courses at:**i) M.Phil./Ph.D. Levels**

- 1) Advanced Molecular Spectroscopy 2) Electrode Processes
 3) Advanced Nuclear & Radiation Chemistry 4) Review papers and Seminars for Ph.D.

ii) M.Sc. Level

- 1) Physical Chemistry-I, 2) Physical Chemistry Labs, 3) Electrochemistry, 4) Nuclear and Radiation Chemistry, 5) Chemical Thermodynamics, 6) Solid State Chemistry, 7) Molecular Spectroscopy.

iii) B.S. Level

- 1) General Chemistry, 2) Lab for General Chemistry, 3) Physical Chemistry, 4) Physical Chemistry labs 5) Solid State Chemistry 6) Electrochemistry 7) Chemical Thermodynamics

List of publications (79), * = corresponding author, Impact Factor ~ 330 as on 6-2024

Publications during 2024	Impact Factor/HJRS
1. Carbon aerogel supported Ni-Fe catalysts for superior oxygen evolution reaction activity Muhammad Asim, Akbar Hussain, Meryem Samancı, Naveed Kausar Janjua , Ayşe Bayrakçeken, <i>Carbon Letters</i> , (2024) 1-23. doi.org/10.1007/s42823-024-00730-4	4.56 X
2. Calcium-, magnesium-, and yttrium-doped lithium nickel phosphate nanomaterials as high performance catalysts for electrochemical water oxidation reaction. Mehwish Huma Nasir, Hajira Niaz, Naila Yunus, Urooj Ali, Safia Khan, Tehmeena Maryum Butt, Hina Naeem, Hu Li, Mohamed A. Habila, and Naveed Kausar Janjua* . <i>Nanotechnology Reviews</i> , De Gruyter 13 (2024) 20230166.	7.85 W
3. Promotional impact of RuO ₂ on CuO/Al ₂ O ₃ bifunctional catalyst towards electro-oxidation of hydrazine and water. Safia Khan, Javeria Arshad, Ifzan Arshad,..... Naveed Kausar Janjua*, Hu Li. <i>International Journal of Hydrogen Energy</i> , (2024) . doi: 10.1016/j.ijhydene.2024.02.293	7.67 W
4. Influence of encapsulation metal hydroxy flavones in 2-hydroxypropyl-β-cyclodextrin over their DNA binding and anti-cancerous activities. Erum Jabeen, Hafiz Muhammad Dawood, Mehwish Huma Nasir, Ahmed M. Zidan, Aneela Javed, Muhammad Saad Khan, Samar Naseer, Naveed Kausar Janjua , Asadullah Dawood, Hafiz Zumra Fatima Hussain. <i>Inorganic Chemistry Communications</i> , Elsevier, 161 (2024) 112077. https://doi.org/10.1016/j.inoche.2024.112663	3.428 X
5. PANI-based nanocomposites synthetic methods, properties, and catalytic applications. Farhad Ali, Asadullah Dawood, Akbar Hussain, Nisar Ahmad Koka, Muhammad Asad Khan, Mohammad Inam Khan, Muhammad Asim, Naveed Kausar Janjua* , Mehwish Huma Nasir, Zeenat Jabeen, Faiza Zaheer. <i>Inorganic Chemistry Communications</i> , Elsevier, 161 (2024) 112077.	3.428 X
6. Nanoengineering of novel MXene (Ti ₃ C ₂ T _x) based MgCr ₂ O ₄ nanocomposite with detailed synthesis, morphology and characterization for enhanced energy storage application. Rubia Shafique, Malika Rani,	3.41 W

Kiran Batool, Aqeel Ahmad Shah, Aboud Ahmed Awadh Bahajjaj, Mika Sillanpää, Hessa A. Alsalmah, Naveed Kausar Janjua , Maryam Arshad, <i>Materials Science and Engineering: B</i> , Elsevier, 299 (2024) 117036. doi.org/10.1016/j.mseb.2023.117036.	
7. Kinetic and thermodynamic analysis of ammonia electro-oxidation over alumina supported copper oxide (CuO/Al ₂ O ₃) catalysts for direct ammonia fuel cells. Safia Khan, Awais Ahmad, Rama Rao Karri, Mohamed Ouladsmame, Naveed Kausar Janjua, Hu Li, <i>International Journal of Hydrogen Energy</i> , 52 (2024) 1206–1216. https://doi.org/10.1016/j.ijhydene.2023.10.308 .	7.67 W
8. Kappa-carrageenan and sodium alginate-based pH-responsive hydrogels for controlled release of methotrexate Muhammad Anees Ur Rehman Qureshi, Nasima Arshad, Atta Rasool, Naveed Kausar Janjua , Muhammad Shoaib Butt, Muhammad Naqeeb Ur Rehman Qureshi, Hammad Ismail, <i>e. R. Soc. Open Sci.</i> 11 (2024) 231952. https://doi.org/10.1098/rsos.231952	3.66 W
9. Fluorine-insertion in solid oxide materials for improving their ionic transport and stability. A brief review. N. A. Tarasova, M Bilal Hanif, Shahid Anwar, Martin Motola, Naveed Janjua , Dmitry Medvedev, <i>International Journal of Hydrogen Energy</i> , Elsevier, 50 (2024) 104-123, doi:10.1016/j.ijhydene.2023.08.074.	7.67 W
Publications during 2023	
10. Cu/Fe embedded N-doped carbon as a highly durable oxygen reduction electrocatalyst, Banafsha Habib, Shaowei Chen, Forrest Nichols, Shamraiz Hussain Talib, Nasima Arshad, Anham Zafar, Arshad Mahmood, Shahid Zaman, Naveed Kausar Janjua , <i>RSC Mater. Adv.</i> 4 (2023) 5353-5360.	5
11. Electrooxidation of ammonia at high-efficiency RuO ₂ -ZnO/Al ₂ O ₃ and PdO-ZnO/Al ₂ O ₃ mesoporous catalysts; an innovative strategy towards clean fuel technology, Safia Khan, Syed Sakhawat Shah, Ayse Bayrakçeken Yurtcan, Aboud Ahmed Awadh Bahajjaj, Anham Zafar, Naveed Kausar Janjua* , <i>Fuel</i> , Elsevier, 347 (2023) 128446. doi.org/10.1016/j.fuel.2023.128446	8.035 W
12. Novel GO/LiCr ₂ O ₄ nanocomposite synthesis, characterizations and electrode testing for electrochemical applications, Tahira Yaqoob, Malika Rani, R. Neffati, Naveed Kausar Janjua , Safia Khan, Maryam Arshad, G. Murtaza, <i>Materials Science and Engineering: B</i> , 287 (2023) 116118.	3.407 W
Publications during 2022	
13. Nickel-Doped Lanthanum Cerate Nanomaterials as Highly Active Electrocatalysts, Tehmeena M. Butt, Safia Erum, Ayesha Mujtaba, Dmitry Medvedev, Naveed K. Janjua* , <i>Frontiers in Chemistry, Sec. Electrochemistry</i> , (2022) 1-18. doi: 10.3389/fchem.2022.1064906	5.545 W

14. Cost effective synthesis approach for green food packaging coating by gallic acid conjugated gold nanoparticles from <i>Caesalpinia pulcherrima</i> extract. Sadia Mehmood*, Naveed Kausar Janjua , Saira Tabassum, Shaheen Faizi, Hicham Fenniri, <i>Results in Chemistry</i> 4 (2022) 100437	2.37 Y
15. Sol-Gel Synthesized High Entropy Metal Oxides as High-Performance Catalysts for Electrochemical Water Oxidation, Muhammad Asim, Akbar Hussain, Safia Khan, Javeria Arshad, Tehmeena Maryum Butt, Amina Hana, Mehwish Munawar, Farhat Saira, Malika Rani, Arshad Mahmood Naveed Kausar Janjua *, <i>Molecules (MDPI)</i> 27(18) (2022) 5951. https://doi.org/10.3390/molecules27185951	4.927 W
16. Electrokinetic Analysis of Water Oxidation on Alumina Supported Silver Oxide Nanopowders, Tehmeena Maryum Butt; Azmat Ullah; Naveed Kausar Janjua *, <i>Journal of Electroanalytical Chemistry</i> , 907 (2022) 116053. doi:10.1016/j.jelechem.2022.116053	4.5 W
17. Investigations of 2D Ti3C2(MXene)-CoCr2O4 nanocomposite as an efficient electrode material for electrochemical supercapacitors, Rubia Shafique, Malika Rani, Arshad Mahmood, Razan A. Alshgari, Kiran Batool, Tahira Yaqoob, Naveed Kausar Janjua , Safia Khan, Shamim Khan, G. Murtaza doi.org/10.1002/er.7605, <i>International Journal of Energy Research</i> 14 (2022) 6008.	4.672 W
18. Highly Effective Bi-functional Electrochemical Activity of Ag2O-PrO2/ γ -Al2O3 Electrocatalysts towards OER and ORR, Mariam Khan, Naveed Kausar Janjua *, Safia Khan, Ibrahim Qazi, Shafaqat Ali, Tahani Saad Algarni <i>International Journal of Energy Research</i> 46 (2022) 14161–14173. doi:10.1002/er.8133	4.672 W
19. Ruthenium and palladium oxide promoted zinc oxide nanomaterials: efficient electrocatalysts for hydrazine oxidation reaction. Safia Khan, Syed Sakhawat Shah, Awais Ahmed, Ayse Bayrakçeken Yurtcan, Erum Jabeen, Naveed Kausar Janjua *, 917 (2022) 116422 <i>Journal of Electroanalytical Chemistry</i> , doi: 10.1016/j.jelechem.2022.116422	4.5 W
20. Electro-Oxidation of Ammonia over Copper Oxide Impregnated γ -Al ₂ O ₃ Nanocatalysts, Safia Khan, Syed Sakhawat Shah, Mohsin Ali Raza Anjum, Mohammad Rizwan Khan, Naveed Kausar Janjua *, <i>Coatings</i> , 11(3) (2022) 313. doi.org/10.3390/coatings11030313	3.5 W
21. Copper chromite/graphene oxide nanocomposite for capacitive energy storage and electrochemical applications, R. Shafique, M. Rani, A. Mahmood, S. Khan, N.K. Janjua , M. Sattar, K. Batool, T. Yaqoob, <i>International Journal of Environmental Science and Technology</i> , 19(8) (2022) 7517-7526. doi: 10.1007/s13762-021-03616-4	3.519 W
Publications during 2021	
22. Electro-Oxidation of Ammonia at Novel Ag ₂ O–PrO ₂ / γ -Al ₂ O ₃ Catalysts, Mariam Khan, Naveed Kausar Janjua *, Safia Khan, Ibrahim Qazi, Shafaqat Ali, Tahani Saad Algarni, <i>Coatings</i> , MDPI, 11, (2021) 257. https://doi.org/10.3390/coatings11020257 .	3.5 W
23. Synthesis of novel (Be,Mg,Ca,Sr,Zn,Ni) ₃ O ₄ high entropy oxide with characterization of structural and functional properties and electrochemical applications, Javeria Arshad*, Naveed Kausar Janjua *, Rizwan Raza,	2.774 Y

<i>Journal of Electrochemical Science and Technology</i> , 12(1) (2021) 112-125.	
24. Synthesis and comparative evaluation of optical and electrochemical properties of efficacious heterostructured-nanocatalysts of ZnSe with commercial and reduced titania, Sadaf Jamil, Naila Jabeen, Latif U. Khan, Amna Bashir, Naveed Janjua, Messaoud Harfouche, Manzar Sohail, Ahmad Hassan Siddique, Azhar Iqbal, Nazish Qadeer, Zareen Akhter, <i>Journal of Alloys and Compounds</i> , 879, (2021) 60449.	6.371 W
25. Synthesis and characterization of graphene oxide-based nanocomposite NaCr ₂ O ₄ /GO for electrochemical applications Naseem Akhtar, Malika Rani*, Arshad Mahmood, Kashmala Tariq, G. Murtaza, Asma A. Alothman, Rahaf S. AL-zahrani, Sajid Ali, Naveed Kasuar Janjua , Aqeel Shah, <i>Journal of Materials Research and Technology</i> , 15 (2021) 6287-6294	6.267 W
26. MXene/Ag ₂ CrO ₄ Nanocomposite as Supercapacitors Electrode, Tahira Yaqoob, Malika Rani, Arshad Mahmood, Rubia Shafique, Safia Khan, Naveed Kasuar Janjua , Aqeel Ahmad Shah, Awais Ahmad, Abdullah A. Al-Kahtani, <i>Materials</i> (Basel). 14(20) (2021) 6008. doi: 10.3390/ma14206008.	3.4 W
27. Polyimides with noncoplanar Carbazole-TPA units: synthesis and characterization. Tayyaba Habib, Maria Zubair, Salma Bilquees, Asma Iqbal, Humaira Masood Siddiqi, Zaman Ashraf & Naveed Kasuar Janjua , <i>Polymer-Plastics Technology and Materials</i> , 60(5) (2021) 536–549. doi.org/10.1080/25740881.2020.1844234	3.0 X
Publications during 2020	
28. Electrochemical Performance of Carbon Modified LiNiPO ₄ as Li-Ion Battery Cathode: A Combined Experimental and Theoretical Study, Mehwish Huma Nasir, Naveed Kasuar Janjua* , Jay Santoki, <i>Journal of Electrochemical Society</i> , 167(13) (2020) 130526 (USA).	4.371 W
29. Promoting effect of ruthenium, platinum and palladium on alumina supported cobalt catalysts for ultimate generation of hydrogen from hydrazine, Naveeda Firdous*, Naveed Kasuar Janjua* , Muhammad Hamid Sarwar Wattoo. <i>International Journal of Hydrogen Energy</i> , 45 (2020), 21573-21587. doi: 10.1016/j.ijhydene.2020.05.167 Elsevier	7.67 W
30. B-site doping in lanthanum cerate nanomaterials for water electrocatalysis, Tehmeena Maryum Butt, Naveed Kasuar Janjua* , Ayesha Mujtaba, et al., <i>Journal of Electrochemical Society</i> , 167 (2020) 026503 (USA). doi: 10.1149/1945-7111/ab63c0	4.371 W
31. Engineering electroactive and biocompatible tetra(aniline)-based terpolymers with tunable intrinsic antioxidant properties in vivo Irum Mushtaq*, Iram Mushtaq, Zareen Akhter*, Iram Murtaza, Samina Qamar, Sidra Ayub, Bushra Mirza, Tehmeena Maryum Butt, Naveed Kasuar Janjua , Faiz Ullah Shah, Farasat Zaman. <i>Materials Science & Engineering C</i> , 108 (2020) 110456.	8.457 W
32. Biferrocenyl Schiff bases as efficient corrosion inhibitors for an aluminium alloy in HCl solution: a combined experimental and theoretical study, Uzma Nazir, Zareen Akhter,* Naveed Kasuar Janjua, Muhammad Adeel Asghar, Sehrish Kanwal, Tehmeena Maryum Butt, Asma Sani, Faroha	4.036 W

Liaqat, Rizwan Hussain, Faiz Ullah Shah*, <i>RSC Advances</i> , 10 (2020) 7585–7599.	
33. Electrochemical Investigations of DNA-Intercalation Potency of Bisnitrophenoxy Compounds with different Alkyl Chain Lengths, Maria Shakeel, Tehmeena Maryum Butt, Maria Zubair, Humaira Masood Siddiqi*, Naveed K. Janjua* , Zareen Akhter, Azra Yaqub, Sadia Mahmood, <i>Heliyon Elsevier</i> , 6 (2020) e04124. doi.org/10.1016/j.heliyon.2020.e04124.	3.776 W
34. Assessing the electrochemical performance of hierarchical nanostructured CuO@TiO ₂ as an efficient bi-functional electrocatalyst, Ayesha Mujtaba*, Naveed K. Janjua* , Tariq Yasin, Sana Sabahat, <i>Journal of the Iranian Chemical Society</i> 17 (2020) 649–662. Springer. doi.org/10.1007/s13738-019-01797-x.	2.271 X
Publications during 2019	
35. Antioxidant Activity and Hepatotoxicity of Flavonoids and Their Metal Complexes Through Co-Administration of β -Cyclodextrin Erum Jabeen, Naveed K. Janjua* , Safeer Ahmed, Tahir Ali, Iram Murtaza, Zaman Ashraf,* Nosheen Masood, Saima Kalsoom. <i>ChemistrySelect</i> 4 (2019) 9420 –9432.	2.307 X
36. Structural and Thermal Properties of Nanocrystalline Al _x (SiFeCoNi) _{100-x} Medium Entropy Alloys, Amina Hana, Naveed Janjua , Tayyab Subhani, Jamil Ahmad, Fahad Ali, Hasan Bin Awais, <i>Mater. Res. Express</i> 6 (2019) 106585. https://doi.org/10.1088/2053-1591/ab3bd6.	1.941 X
37. DNA binding interaction studies of flavonoid complexes of Cu(II) and Fe(II) and determination of their chemotherapeutic potential, Erum Jabeen, Naveed Kausar Janjua, IftikharTahiri, Muhammad Kashif, Aneela Javed. <i>Inorganica Chimica Acta</i> 496 (2019) 119048.	3.118 X
38. Synthesis, characterization, docking and electrochemical studies of nitroaromatic amides, Asifa Nigar, Muhammad Shabbir, Zareen Akhter*, Sana Sabahat, M. Qaiser Fatmi, Michael Bolte, Iqbal Ahmad, Naveed Kausar Janjua , Sadia Mehmood, <i>Journal of Molecular Structure</i> . <i>Journal of Molecular Structure</i> , 1176 (2019) 791-797. doi: 10.1016/j.molstruc.2018.09.024.	3.841 W
39. CoPt _x / γ -Al ₂ O ₃ bimetallic nanoalloys as promising catalysts for hydrazine electrooxidation, Naveeda Firdous, Naveed Kausar Janjua , <i>Heliyon</i> , Elsevier, 5 (2019) 01380. doi: 10.1016/j.heliyon.2019.	3.776 W
40. Removal of metal ions using metal-flavonoid-DNA, adduct protocol, Erum Jabeen, Naveed Kausar Janjua* , Safeer Ahmed*, <i>Journal of Saudi Chemical Society</i> , 23 (2019) 118–126. doi.org/10.1016/j.jscs.2018.05.010 ISSN: 1319-6103 _ 2018 King Saud University.	5.6 W
41. Ferrocene Derivatives: Potential Material for Anticancer Drugs, Asifa Nigar, Naveed Kausar Janjua , Asghari Gul, Abid Ali, Zareen Akhter*, Sadia Mehmood: <i>Journal of Chemical Society of Pakistan</i> , 41 (3) (2019) 1046. No. JCSP-081117-11691.	0.7 Y
42. Kinetics, Mechanistic and Theoretical Studies on Scavenging Activities of Antioxidants Using 1,2-Dinitrobenzene DNB/DNB•– and DNB/DNB ²⁻ – Model Systems: Cyclic Voltammetric and Quantum Semi-Empirical Data Interpretation, N. Arshad, and N. K. Janjua , <i>Russian Journal of</i>	1.351 Y

Electrochemistry, 55 (2) (2019) 191-213. ISSN 1023-1935.	
43. Ferrocene-functionalized gold nanoparticles: Study of a simple synthesis method and their electrochemical behavior, Sana Sabahat, Naveed Kausar Janjua , Zareen Akhter, Muhammad Umair Hassan, <i>Chemical Papers</i> , Springer Slovak Academy of Sciences(2019). doi: 10.1007/s11696-018-0646-9.	2.200 Y
Publications during 2018	
44. Effect of lanthanum and hydrogen peroxide on the thermal and microstructural properties of NiO-Ce _{0.8} Sm _{0.2} O _{1.9} composite, M. Naveed Akbar, Mustafa Anwar, Zuhair S. Khan, Naveed K. Janjua , <i>Journal of the Australian Ceramic Society</i> , 54 (2018) 191–197.	1.741 X
Publications during 2017	
45. A selective and sensitive monitoring of the OH radical using flavonoid-modified electrodes Erum Jabeen, Naveed Kausar Janjua* , Safeer Ahmed, Enrique Domínguez-Álvarez*, Claus Jacob*, <i>Electrochimica Acta</i> 258 (2017) 228–235. doi.org/10.1016/j.electacta.2017.10.065.	7.336 W
46. DFT prediction s, synthesis, stoichiometric structures and anti-diabetic activity of Cu (II) and Fe (III) complexes of quercetin, morin, and primuletin, Erum Jabeen, Naveed Kausar Janjua* , Safeer Ahmed, Iram Murtaza, Tahir Ali, Nosheen Masood, Gulam Murtaza Aysha, Sarfraz Rizvi, <i>Journal of Molecular Structure</i> , 1150 (2017) 459-468. doi.org/10.1016/j.molstruc.2017.09.003.	3.841 W
47. Radical scavenging propensity of Cu ²⁺ , Fe ³⁺ complexes of flavonoids and in-vivo radical scavenging by Fe ³⁺ -primuletin, Erum Jabeen, Naveed Kausar Janjua* , Safeer Ahmed, Iram Murtaza, Tahir Ali, Shahid Hameed, <i>Spectrochimica Acta Part A</i> : 171 (2017) 432-438. doi:10.1016/j.saa.2016.08.035, Elsevier.	4.831 W
Publications during 2016	
48. Electrochemical study of natural gas fueled electrodes for low temperature solid oxide fuel cell, M. Jafar Hussain, Rizwan Raza, Mukhtar Ahmad, Akbar Ali, Imran Ahmad, Waqar A. A. Syed, Naveed Kausar Janjua , M. Anis-ur-Rehman, M. Ajmal Khan, Shaukat A. Shahid, and Ghazanfar Abbas, <i>International Journal of Modern Physics B</i> , 30 (2016) No. 23. doi: 10.1142/S0217979216501617.	1.7 X
49. Study on thermal, spectroscopic and electrochemical behavior of some ferrocene-containing organometallic polyesteramides and their siloxane-based block copolymers, Muhammad Saif Ullah Khan, Naveed Kausar Janjua , Sana Sabahat, Zareen Akhter*, Mohibullah, <i>Journal of Polymer Research</i> . 23 (2016) 112. Doi: 10.1007/s10965-016-1003-8.	3.061 X
50. LiNiFe-based layered structure oxide and composite for advanced single layer fuel cells, Bin Zhu*, Liangdong Fan*, Hui Deng, Yunjune He, Muhammad Afzal, Wenjing Dong, Azra Yaqub, Naveed K. Janjua*, <i>Journal of Power Sources</i> 316 (2016) 37-43.	9.2 W
51. AuCu@Pt Nanoalloys for Catalytic Application in Reduction of 4-Nitrophenol, Sadia Mehmood, Naveed Kausar Janjua* , Farhat Saira and Hicham Fenniri, <i>Journal of Spectroscopy</i> , Volume 2016 (2016), Article ID 6210794, 8 pages, http://dx.doi.org/10.1155/2016/6210794 Hindawi.	1.75 X
52. Optimal Co-Ir bimetallic catalysts supported on γ-Al ₂ O ₃ for hydrogen	7.67

generation from hydrous hydrazine, Naveeda Firdous, Naveed Kausar Janjua* , Ibrahim Qazi, Muhammad Hamid Sarwar Wattoo. <i>International Journal of Hydrogen Energy</i> , 4 (1) (2016) 984-995. Doi:10.1016/j.ijhydene.2015.10.084. Elsevier.	W
53. Electrochemical sensing platform based on CuO@CeO ₂ hybrid oxides, Ayesha Mujtaba, Naveed K. Janjua* , <i>Journal of Electroanalytical Chemistry</i> 763 (2016) 125–133. Elsevier. doi:10.1016/j.jelechem.2015.12.050,	4.5 W
54. All in One Multifunctional Perovskite Material for Next Generation SOFC, Wenjing Dong, Azra Yaqub, Naveed K. Janjua , Rizwan Raza, Muhammad Afzal, Bin Zhu*, <i>Electrochimica Acta</i> , 193 (2016) 225–230, Elsevier, doi:10.1016/j.electacta.2016.02.061.	7.336 W
Publications during 2015	
55. Synthesis and characterization of B-site doped La _{0.20} Sr _{0.25} Ca _{0.45} TiO ₃ as SOFC anode materials, Azra Yaqub, Naveed K. Janjua* , Cristian Savaniu, John T. S. Irvine, doi: 10.1016/j.ijhydene.2014.08.083, <i>International Journal of Hydrogen Energy</i> , 40 (2015) 760–766. Elsevier.	7.67 W
56. Fabrication and electrocatalytic application of CuO@Al ₂ O ₃ hybrids, Ayesha Mujtaba, Naveed K. Janjua* , <i>Journal of Electrochemical Society</i> , 162(6) (2015) H328-H337 (2015). (USA). doi: 10.1149/2.0351506jes,	4.371 W
57. Electrochemical Properties of Barium Cerate Doped with Zinc for Methanol Oxidation Naveed K. Janjua* , Mahwish Jabeen, Mehrosh Islam, Azra Yaqub, Sana Sabahat, Sadia Mehmood, Misbah Mumtaz, Ayesha Mujtaba, Rizwan Raza, Ghazanfer Abbas, <i>Journal of Chemical Society of Pakistan</i> , 37 (05) (2015) 850-858. ISSN: 0253–5106.	0.7 Y
Publications during 2014	
58. Preparation and catalytic evaluation of Ir and Ru catalysts supported in γ -Al ₂ O ₃ for hydrazine Naveed K. Janjua* , Naveeda Firdous, Arshad Saleem Bhatti, Zuhair S. Khan, <i>Applied Catalysis A: General</i> , 479 (2014) 9–16. Elsevier. http://dx.doi.org/10.1016/j.apcata.2014.04.025 ,	5.723 W
59. β -Cyclodextrin assisted solubilization of Cu and Cr complexes of flavonoids in aqueous medium: A DNA-interaction study, Erum Jabeen, Naveed Kausar Janjua* , Shahid Hameed, <i>Spectrochimica Acta Part A</i> : 128 (2014) 191–196. Doi: 10.1016/j.saa.2014.02.132, Elsevier.	4.831 W
60. Microwave assisted non–aqueous sol-gel synthesis of LiNiPO ₄ and its copper doped analogues Misbah Mumtaz, Naveed Kausar Janjua* , Azra Yaqub, Sana Sabahat, <i>Journal of Sol-Gel Science and Technology</i> , Issue 1, (2014) 56–62. Springer. doi: 10.1007/s10971-014-3423-4 72,	2.606 X
61. Cyclic Voltammetric Investigation of Interactions between Bisnitroaromatic Compounds and ds.DNA, Naveed Kausar Janjua* , Zareen Akhter, Fariya Jabeen, and Bushra Iftikhar, <i>Journal of the Korean Chemical Society</i> , 58 (2) (2014) 153–159. Republic of Korea, doi.org/10.5012/jkcs.2014.58.2.153.	0.19 Y
62. Electrocatalytic activity of LiNiPO ₄ and the copper doped analogues towards oxygen reduction, N. Kausar Janjua* , M. Mumtaz, A. Yaqub, S. Sabahat, A. Mujtaba <i>The Nucleus</i> 51, 1 (2014) 109–115. NCLE AM, ISSN 0029- 5698	
Publications during 2013	
63. Preparation via a solution method of La _{0.20} Sr _{0.25} Ca _{0.45} TiO ₃ and its characterization for anode supported solid oxide fuel cells, Azra Yaqub, Cristian Savaniu, Naveed K. Janjua , John T.S. Irvine*, <i>Journal of</i>	14.511 W

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64. Spin Trapping Radicals from Lipid Oxidation in Liposomes in the Presence of Flavonoids, Nasima Arshad*, Naveed K. Janjua , Leif H. Skibsted, Mogens L. Andersen, <i>Journal of Chemical Society of Pakistan</i> , 35 , No.2, (2013) 544. ISSN: 0253–5106.	0.7 Y
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65. Synthesis, physicochemical studies and potential applications of high-molecular weight ferrocene-based poly(azomethine)ester and its soluble terpolymers, Asghari Gul, Zareen Akhter*, Arshad Bhatti, Muhammad Siddiq, Abbas Khan, Humaira M. Siddiqe, Naveed Kausar Janjua , Amber Shaheen, Sehrish Sarfraz, Bushra Mirza, <i>Journal of Organometallic Chemistry</i> , 719 (2012) 41–53. DOI:10.1016/j.jorganchem.2012.08.010 Elsevier.	2.345 X
66. Electrochemical studies of interactional mechanism and scavenging activity of antioxidants towards dinitroaromatics, Nasima Arshad*, Naveed K. Janjua , Athar Y. Khan, Javeed H. Zaidi, Leif H. Skibsted, <i>Monatshefte für Chemie / Chemical Monthly</i> , 143 (2012) 377–383. DOI:10.1007/s00706-011-0606-3. Springer-Verlag.	1.613 X
67. Natural Flavonoids Interact with Dinitrobenzene System in Aprotic Media: An Electrochemical Probing, Nasima Arshad, Naveed K. Janjua *, Athar Y. Khan, Azra Yaqub, Torsten Burkholz and Claus Jacob, <i>Natural Product Communications</i> , Vol. 7 (3) (2012) 311–315. (USA).	1.496 W
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68. Electrochemical fabrication of self assembled monolayer using ferrocene-functionalized gold nanoparticles on glassy carbon electrode, Sana Sabahat, Naveed Kausar Janjua *, Mathias Brust, Zareen Akhter, Elsevier <i>Electrochimica Acta</i> , 56 (20) (2011) 7092–7096, doi:10.1016/j.electacta.2011.05.10.	7.336 W
69. Flavonoid-DNA binding studies and thermodynamic parameters, Naveed Kausar Janjua *, Amber Shaheen, Azra Yaqub, Fouzia Perveen, Sana Sabahat, Misbah Mumtaz, Claus Jacob, Lalla Aicha Ba, Hamdoon A. Mohammed, <i>Spectrochimica Acta Part A</i> , Elsevier. 79 (5), (2011) 1600–1604, doi:10.1016/j.saa.2011.05.018. Elsevier.	4.831 W
70. Synthesis, structure and DNA binding studies of 1,4-bis((4-nitrophenoxy)methyl)benzene and its reduction derivative, Ali Haider, Zareen Akhter*, Fariya Jabeen, Naveed Kausar Janjua , Michael Bolte, Elsevier <i>Journal of Molecular Structure</i> , 994 (1-3) (2011) 242–247. doi:10.1016/j.molstruc.2011.03.026 Elsevier.	3.841 W
Publications during 2009	
71. Spectrophotometric studies of flavonoid-DNA interaction. Naveed Kausar Janjua *, Asima Siddiqe, Azra Yaqub, Sana Sabahat, Rumana Qureshi, Sayed ul Haque. <i>Spectrochimica Acta Part A</i> , 74 (2009) 1135–1137. doi:10.1016/j.saa.2009.09.022 Elsevier.	4.831 W
72. Electrochemical investigations of antioxidant interactions with radical anion and dianion of 1,3-dinitrobenzene, Nasima Arshad, Naveed Kausar Janjua *, Safer Ahmed, Athar Y Khan, Leif H Skibsted. <i>Electrochimica</i>	7.336 W

Acta, 54 (2009) 6184–6189. doi:10.1016/j.electacta.2009.05.087. Elsevier.	
73. Solvent-oriented ¹ H-NMR chemical shifts of pyridinium iodide and application of Buckingham equation, N. Kausar Janjua* , R. Qureshi, S. Ahmed, A. Yaseen Khan, M. Muhammad, M. Sadiq Subhani, R. Iqbal, <i>Journal of Molecular Structure</i> , 919 (2009) 321–324. doi:10.1016/j.molstruc.2008.09.026. Elsevier.	3.841 W
Publications during 2008	
74. Electrochemical and spectroscopic investigations of protonated ferrocene-DNA intercalation, Afzal Shah, Rumana Qureshi*, Naveed Kausar Janjua , Saeed-ul-Haq, and Safeer Ahmad, 24 th Nov. 11 (2008) 1437–1441, <i>Journal of Analytical Sciences</i> , Chem. Soc. Japan. doi: 10.2116/analsci.24.1437.	1.967 X
75. Charge transfer complexes of picolines with σ - and π - acceptors, H. Razzaq, R. Qureshi*, Naveed K Janjua , Farhat Saira, Samia Saleemi, <i>Spectrochimica Acta Part A</i> , 70, (2008) 1034–1040. doi:10.1016/j.saa.2007.10.030 Elsevier.	4.831 W
Publications during 1992	
76. Surface tension measurements of binary mixtures of glycerol with organic co-solvents, M.J. Iqbal*, M.A. Rauf, Naveed Ijaz , <i>Journal of Chemical & Engineering Data</i> , 37 (1992) 45–47, JACS (USA). doi:10.1021/je00005a015	2.6 W

Ph.D. Students Supervised and Awarded Degree (13 + 1)

- Dr. Ms. Nasima Arshad** is Associate Professor at AIOU, Islamabad. Dr. A. Y. Khan co-supervised her Ph.D. Thesis. She had a 6 months training under Dr Lief Skibsted at Copenhagen University, Denmark. Ph.D. Thesis Titled: Electrochemical and ESR Investigations of Antioxidants. Her Viva Voce exam was held on 11-02-2010. Associate Professor in AIOU Islamabad.
- Dr. Ms. Sana Sabahat** is working as Assistant Professor at COMSATS CIIT, Islamabad). She had a 12 months training with Dr Mathias Brust at Liverpool University, UK. Her Viva Voce exam was held on 7-7-2011. Prof. Dr. Zareen Akhter co-supervised her Ph.D. Thesis. Thesis titled: Electrochemical and Spectroscopic Studies of Ferrocene Modified Gold Nanoparticles (3-9-2005 to 7-7-2011). Assistant Professor and Head of the Chemistry Department in CIIT Islamabad.
- Dr. Ms. Azra Yaqub** is working as Research Officer at PINSTECH, Islamabad. She had 18 months training with Prof. Dr John TS Irvine at University of St. Andrews, Fife, Scotland, UK. Her Viva Voce was held on 5-6-2014. Thesis titled: Synthesis and Application of Calcium Doped Lanthanum Strontium Titanate as Anode Support for Fuel Cell Applications (8-7-2009 to 5-2014). Employed in PINSTECH.
- Dr. Ms. Misbah Mumtaz** She had a 20 months training with Prof. Dr John TS Irvine at University of St. Andrews, Fife, Scotland, UK. Her Viva Voce exam was held on 16-2-2015. Thesis titled: Synthesis and characterization of lithium metal phosphates as conductive materials for electrochemical devices (24-5-2008--- 16-2-2015). Post-Doc placement at QAU and Warrick University UK.
- Dr. Ms. Sadia Mehmood**, She had a 6 months training under IRSIP/HEC with Prof. Hicham Fenneri at University of Alberta Canada. Her Viva Voce exam was held on 24-6-2016. Thesis titled: Synthesis, Characterization and Applications of Noble Metal Nanoalloys. Assistant Professor at Pak-Austria Institute of Applied Sciences, Abbottabad.

6. **Dr. Ms. Ayesha Mujtaba.** She did all her experimental work indigenously. Thesis titled: Fabrication and electrocatalytic applications of metal oxide–metal oxide hybrids. Her Viva Voce exam was held on 24-6-2016. (1-12-2011---24-6-2016). Visiting Teacher at QAU and AIOU.
7. **Dr. Ms. Erum Jabin.** She did all the experimental work indigenously in our labs and collaborated with biochemistry researchers for biological studies. Thesis titled: Synthesis and Evaluation of Radical Scavenging Potencies and DNA Binding of Metal-Flavonoid Complexes for their Versatile Applications (delivered seminar on 01-06-2016) Her Viva Voce exam held on 28-2-2017. (1-12-2013---9-3-2017). Employed in AIOU Islamabad.
8. **Dr. Ms. Naveeda Firdous.** She did all the experimental work indigenously in our labs and published high quality research papers. Thesis titled: γ -Al₂O₃ Supported Bimetallic Catalysts: Synthesis and Applications for Hydrazine Decomposition (delivered seminar on 08-06-2016). Voce exam held on 06-12-2017. (20-09-2012---06-12-2017). Employed in Research Institute Islamabad.
9. **Dr. Ms. Amina Hana** did all her research work here in NKJ group labs and PIEAC, IST Islamabad Pakistan. Thesis titled: Electrochemical study on HEAs including Mg-alloys” (delivered seminar on 09-04-2019). Viva Voce exam held on 04-11-2020. (3-2015 ---04-11-2020).
10. **Ms. Mehwish Huma Nasir.** She had a 6 months training under IRSIP/HEC with Prof. Joachim R. Binder at the Institute for Applied Materials (IAM-ESS), Karlsruhe Institute of Technology, Germany. She delivered Ph.D. Seminar on 8-5-2019. Thesis titled: Carbon Modified Lithium Nickel Phosphate Perovskites as Conductive Materials for Electrochemical Devices. Her viva exam was held on 9-3-2021; (9-2014---9-3-2021).
11. **Ms. Javeria Arshad** has carried out indigenous research on “Synthesis and Electrochemical Characterization of High Entropy Mixed Metal Oxides” and viva exam was held on 6-4-2021 (2-2016---6-4-2021).
12. **Ms. Tehmeena Maryum Butt** has carried out indigenous research on “Fabrication of nanostructured perovskite oxides for energy Applications” She delivered Ph.D. Seminar on 12-11-2021 and her viva voce exam was held on 28-12-2022. (13-2-2017---28-12-2022).
13. **Ms. Safia Khan** (as Co-supervisor) has carried out research on “Ammonia electrocatalysis on metal oxide coated γ -Al₂O₃ nanomaterials” Her viva voce exam was held on 20-9-2022. (2-2016---20-9-2022).
14. Ms. Banafsha Habib Ur Rehman has carried out indigenous research on “Materials development for ORR and OER applications”. During 2015 and 2023. Her thesis reports are received and case is ready for viva exam.

Current Ph.D. Students in Progress (3)

Name of Student	Title/Status	Registration-Completion Date
1.Mr. Muhammad Asim	High Entropy Oxides as Efficient Catalyst for Fuel Cells Technologies	9-2021-----9-2025
2.Mr. Akbar Hussain	Synthesis of High Entropy Oxides (HEOx) for Various Electrochemical Applications	9-2021-----9-2025
3.Ms. Sadia Kanwal	Carbon-Modified LiMPO ₄ (M = Transition Metal) for Electrochemical Applications in Energy Devices	2-2023-----9-2027

M.Phil. Students Supervised and Awarded Degree (53); In progress (3)

Name of Student	Title	Registration-Completion Date
1. Ms. Farhat Saira	Synthesis and Characterization of Electroactive Materials with Emphasis on Nanoscale Synthetic Routes.	16-2-2005 to 27-2-2007
2. Ms. Saira Imtiaz	Synthesis and Characterization of NiFe ₂ O ₄ Nanoparticles.	7-9-2005 to 31-8-2007

4. Ms. Wajda Kanwal	Synthesis and characterization of silver coated Al_2O_3 nanoparticles	2-2006 to 3-2008
3. Ms. Asima Siddiqa	Electrochemical and Spectroscopic Investigations of Antioxidants–DNA Interactions.	5-9-2006 to 25-9-2008
5. Ms. Naveeda Firdous	Synthesis and Characterization of Alumina Based Ir and Ru Catalysts.	19-2-2007 to 5-3-2009
6. Ms. Amber Shaheen	Interactions of DNA with some new flavonoids: A spectroscopic and electrochemical study.	18-9-2008 to 5-8-2010
7. Ms. Faria Jabeen	Spectroscopic and electrochemical interactional studies of DNA with some nitro- and amine-based organic compounds.	18-9-2008 to 30-8-2010
8. Mr. Mohibullah	Interactional studies between polymeric ferrocene-siloxane derivatives and ds.DNA using UV-vis spectroscopic and cyclic voltammetric techniques.	15-2-2009 to 15-3-2011
9. Mr. M. Usman	Gold electrode modification by thiolated trizoles (SAMs) for ascorbic acid sensing.	12-2-2010 to 18-3-2011
10. Mr. Abid Ali	Interactional studies of new nitrocompounds with ds.DNA: Towards potential drug development.	17-2-2011 to 5-4-2012
11. Ms. Mahwish Jabeen	Tuning of Barium Cerate Properties with Zinc for Fuel Cell Application	3-2013 to 5-3-2014
12. Ms. Mehrosh Islam	Tuning of Barium Cerate Properties with Copper for Fuel Cell Application.	6-2013 to 6-2014
13. Ms. Rakhshan Javed	Synthesis, Characterization and Antioxidant Properties of Metal Quercetin Complexes.	2-2014 to 26-3-2015
14. Ms. Javeria Arshad	Synthesis and Electrochemical Characterization of LiCoPO_4 and $\text{LiCo}_{1-x}\text{Zn}_x\text{PO}_4$ Olivines.	2-2014 to 25-8-2015
15. Mr. Ghaus ur Rehman	Synthesis, electrochemical and spectroscopic characterization of morin–metal complexes.	2-2014 to 10-9-2015
16. Ms. Sehrish Khan	Electrochemical and Spectroscopic Studies of Flavonoid-Metal Complexes with 1,4-Dinitrobenzene	2-2015 to 24-2-2016
17. Ms. Safia Khan	Impregnation of CuO onto γ -Alumina for Electrocatalytic Applications	9-2015 to 4-7-2016
18. Ms. Saba Khan	Fabrication of $\text{NiO}@ \gamma\text{-Al}_2\text{O}_3$ and Electrochemical Application of Hybrid Electrocatalyst	9-2015 to 4-10-2016
19. Ms. Asiya Hassan	$\text{Fe}_2\text{O}_3@ \gamma\text{-Al}_2\text{O}_3$ nanocomposites: Synthesis, characterization and electrocatalytic applications	3-2016 to 25-1-2017
20. Ms. Tehmeena Maryum Butt	Fabrication, characterization and electrochemical applications of alumina supported Ag_2O	3-2016 to 6-2-2017
21. Ms. Mariam Khan	Synthesis of $\gamma\text{-Al}_2\text{O}_3$ supported Ag_2O – PrO_2 nanocomposites for electrochemical applications	3-2016 to 24-2-2017
22. Ms. Faiza Ismail	Synthesis and characterization of $\text{CoO}@ \text{Al}_2\text{O}_3$ nanoparticles for electrochemical applications	3-2016 to 3-2017
23. Ms. Rotaba Ansir	Iron doped lanthanum cerate materials: synthesis, characterization, electroanalysis and applications in SOFC	9-2016 to 21-7-2017
24. Ms. Shabana Ali Zaman	Synthesis and characterization of chromium doped lanthanum cerate materials for solid oxide fuel cell and electrochemical applications	9-2016 to 17-8-2017

25. Ms. Sadaf Jabeen	Aluminum doped lanthanum cerate materials: synthesis, characterization, electroanalysis and applications in SOFC	9-2016 to 17-8-2017
26. Ms. Maria Pervaiz	Synthesis, Characterization and Electrochemical Applications of Zinc Doped Lanthanum Cerate Materials for SOFCs.	3-2017 to 4-2018
27. Ms. Maria Mukhtar	LaCe _{1-x} Cu _x O ₃ Perovskite Materials: Synthesis, Electrochemical and Fuel Cell Applications	3-2017 to 4-2018
28. Ms. Poshmal Sumreen Ahmad	Synthesis and characterization of chromium doped lanthanum cerate materials for solid oxide fuel cell and electrochemical applications	9-2017 to 4-10-2018
29. Ms. Ammara Rafique	Synthesis and Characterization of Iron-doped Lanthanum Cerate Materials and their use in Electrochemical Study of Hydrazine Oxidation	9-2017 to 3-10-2018
30. Ms Safia Erum	Synthesis of Nickel Doped Lanthanum Cerates and their Applications in Electrochemical Water Splitting	3-2018 to 9-4-2019
31. Ms Mehwish Khurshid	Synthesis, Characterization and Electrochemical Analysis of Magnesium Doped Lanthanum Cerate Nanomaterials	3-2018 to 17-4-2019
32. Ms. Roheen	Cobalt Doped Lanthanum Cerates: Characterization and Electrochemical Applications in Water Electrocatalysis	3-2018 to 19-4-2019
33. Ms. Amina Zara	LaCe _{1-x} Li _x O ₃ Perovskite Materials: Synthesis and Electrochemical Applications	3-2018 to 4-2019
34. Ms. Misbah Rasheed	Ball-Mill Assisted Synthesis of Doped Barium Titanates and Their Electrochemical Applications	7-2018 to 15-10-2019
36. Ms. Aqsa Mansoor	Synthesis of Fe ₂ O ₃ impregnated Al ₂ O ₃ nanomaterials via precipitation method and their electrochemical application	3-2019 to 17-6-2020
35. Mr. Azmat Ullah	Synthesis of Alumina supported silver oxide nanocrystalline material for electrochemical Applications	3-2019 to 10-7-2020
37. Ms. Syeda Laraib	Synthesis, Characterization and Electroanalytical Applications of CuO@Al ₂ O ₃ Nanomaterials	3-2019 to 29-6-2020
38. Mr. Muhammad Asim	Facile Sol-gel Synthesis of High Entropy Oxides for Electrocatalytic Water Oxidation	9-2019 to 15-2-2021
39. Mr. Akbar Hussain	Sol-gel Synthesis of Single Phase High Entropy Oxides and their Electrochemical Applications	9-2019 to 9-2-2021
40. Ms. Amina Hanif	Synthesis and Electrochemical Characterization of Multi-Component High Entropy Oxides	9-2019 to 4-2021
41. Ms. Urooj Ali	Yttrium doped Lithium Nickel phosphates: Synthesis, Characterization and Electrochemical Applications	3-2020 to 9-7-2021
42. Ms. Naila Yunus	Synthesis of Calcium-doped Lithium Nickel phosphate Nanomaterials and their Electrochemical Applications	3-2020 to 15-7-2021
43. Ms. Hajra Niaz	Electrochemical Application of Magnesium-Doped Lithium Nickel Phosphate Nanomaterials	3-2020 to 15-7-2021
44. Ms. Mehwish Munawwar	Sol-gel Synthesis of Multicomponent High Entropy Metal Oxides and Electrochemical their Applications for Water Oxidation	9-2020 to 8-2021
45. Ms. Nida Sabir Malik	Sol-Gel Synthesis and Electrochemical Studies of Nickel-Doped Lithium Cobalt Phosphates for Water Electrocatalysis	8-2-2021 to 23-5-2022

46. Ms. Farah Abbas	Sol-Gel Synthesis and Electrochemical Studies of Magnesium-Doped Lithium Cobalt Phosphates for Water Electrocatalysis	8-2-2021 to 24-5-2022
47. Ms. Sadia Habib	Sol-Gel Synthesis and Electrochemical Studies of Zinc-Doped Lithium Cobalt Phosphates for Water Electrocatalysis	8-2-2021 to 30-5-2022
48. Ms. Ayesha Kanwal	LiMMgPO ₄ (M = Co, Ni, Zn) nanomaterials for electrocatalysis applications	8-2-2021 to 6-10-2022
49. Mr. Shakil Abbas	Synthesis and electrochemical applications of graphite-coated spinel hexanery high entropy oxides	19-2-2022 to 16-5-2023
50. Mehreen Tariq	Sol-gel synthesis and electrochemical applications of graphite-coated high entropy oxides.	3-2022----9-2023
51. Hira Khalid	Fabrication and Electrocatalytic Applications of CuO@Fe ₂ O ₃ Nanoparticles	8-2022----9-2023
52. Ms. Sumiya Arif	Synthesis and Characterization of Fe ₂ O ₃ @γ-Al ₂ O ₃ Nanoparticles for Electrochemical Applications	8-2022----9-2023
53. Ms. Nazia Hassan	Synthesis and Characterization of Fe ₂ O ₃ @γ-ZnO Nanoparticles for Electrochemical Applications	2-2023---30-4-2024
54. Mr. Naeem Ullah	g-C 3 N 4 -Coated High Entropy Oxides as Efficient Catalyst for Oxygen Evolution Reaction	7-2023---7-2024
55. Ms. Maria Rehmen	Oxygen Evolution Reaction Electrocatalysis on Various Transition Metal	7-2023---7-2024
56. Ghulam Haidar	Graphited-High Entropy Oxides for Electrochemical Applications	2-2024---4-2025

Conferences/ Seminars/ Workshops (a) Attended in Pakistan			
S.No	Period	Title/Details	Place and Organizer
1.	28-30 th October 1999	10 th National Chemistry Conference (CSP). Oral Talk on "Nuclear Magnetic Resonance Studies of Pyl and Application of Buckingham Equation (Proton Chemical Shifts of Charge Transfer Complex, Pyridinium Iodide in Binary Mixtures of Chloroform + Dichloromethane).	Department of Chemistry Quaid-i-Azam University, Islamabad
2.	24-26 th July 2001	Oral Talk on Chemical Kinetics. As Trainer in Teacher Training Programme,	F.G. College for Women, G-10/4 Islamabad, F.D.E.
3.	17-29 th April 2006	Teacher Training Program, Oral Talk and Practical Demonstration in Electrochemistry	F.G. College for Women, F-7/2 Islamabad, F.D.E.
4.	6-11 th Sep. 2009	19 th National Chemistry Conference. Synthesis and Characterization of TiO ₂ contained Conducting nanocomposites. Talk: S. Ahmad*, M. Javed & N. K. Janjua.	Bara Gali Campus, Abbottabad.
5.	15-17 th May, 2009	Coordinated 1 st Chemistry Alumni Meeting and Seminar on "Frontiers of Chemistry"	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
6.	15-17 th Feb. 2010	8 th International & 20 th National Chemistry Conference Talk: Nasima Arshad*, Naveed K. Janjua, Leif H. Skibsted, Mogens L. Andersen & Charlotte U. Carlsen.PTC-16 (SL).	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
7.	5-17 th Feb. 2010	8 th International & 20 th National Chemistry Conference Talk: Sana Sabahat*, Naveed K. Janjua, Z. Akhter & Mathias Brust. M-21 (SL)	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
8.	15-17 th Feb. 2010	8 th International & 20 th National Chemistry Conference Talk: Fouzia Perveen*, R. Qureshi, Naveed K. Janjua, S. Ahmad, et. al. PTC-18 (SL)	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
9.	25 th Feb, 2010	4 th National Seminar on Intellectual Property Rights and its Role in Economic Growth organized by GoP, Patent Advisory Cell, PCSIR, Karachi	PCSIR, Islamabad
10.	27-29 th May, 2011	Workshop on Molecular Modeling in Chemistry and Beyond	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
11.	19 th December, 2012	Pakistan Industry Academia Relations Association, PIARA	Islamabad Club, Pakistan
12.	30 th April 2013	Talk: Use of B site doped spinels for the Li Ion batteries. Misbah Mumtaz*, Naveed Kausar Janjua	National seminar on Energy Materials 2013 Institute of Chemical Engineering and Technology, University of the Punjab, New Campus, Lahore. Pakistan

13.	2 nd -30 th May 2013	Recent Trends in Computational Chemistry	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
14.	22 nd -24 th August 2013	Talk: BCZYZ-based Proton Conducting Electrolyte for SOFCs Naveed Kausar Janjua*	International Conference on Emerging Materials 2013 NUST H-12 Islamabad
15.	22 nd -24 th August 2013	Talk: Spinel chemistry use in Li ion batteries Misbah Mumtaz*, Naveed Kausar Janjua	International Conference on Emerging Materials 2013 NUST H-12 Islamabad
16.	22 nd -24 th August 2013	Poster: Synthesis and characterization of lithium metal phosphate for electrochemical devices. Misbah Mumtaz*, Naveed Kausar Janjua. Poster got 2nd Prize in all	International Conference on Emerging Materials 2013 NUST H-12 Islamabad
17.	4 th Nov 2013	Talk: Use of lithium rich and poor phase in Li ion batteries, Misbah Mumtaz*, Naveed Kausar Janjua	5 th Chemistry Conference 2013 on "Chemistry in life Sciences" PINSTECH Nilore Islamabad
18.	18-20 th March 2014	Talk: Electrochemical Properties of Barium Cerate Tuned with Zinc Naveed Kausar Janjua*, Mahwish Jabeen, Sana Sabahat	NANOSET-14, COMSATS IIT Lahore
19.	18-20 th March 2014	Talk: Synthesis and Processing of $\text{La}_{0.20}\text{Sr}_{0.25}\text{Ca}_{0.45}\text{TiO}_3$ as SOFC Anode Material *Azra Yaqub, Naveed K. Janjua, Cristian Savaniu, John T.S. Irvine	NANOSET-14, COMSATS IIT Lahore
20.	18-20 th March 2014	Poster: Improved electrical properties via copper doping in LiNiPO_4 crystal lattice using Microwave heating Misbah Mumtaz*, Naveed Kausar Janjua, Azra Yaqub Poster got 1st Prize in all	NANOSET-14, COMSATS IIT Lahore
21.	24-26 th Nov 2015	Talk: Synthesis and Electrochemical Characterization of $\text{LiCo}_{1-x}\text{Zn}_x\text{PO}_4$ Olivines Javeria Arshad, Naveed Kausar Janjua*, Misbah Mumtaz, Ibrahim Qazi	7 th Chemistry Conference 2015 on "Chemistry in Engineering and life Sciences" PINSTECH-PIEAS Nilore Islamabad
22.	24-26 th Nov 2015	Poster: Synthesis and characterization of carbon microspheres as pore former in a titanate based anode material for SOFCs. Azra Yaqub*, Cristian Savaniu, Naveed K. Janjua, John T.S. Irvine	7 th Chemistry Conference 2015 on "Chemistry in Engineering and life Sciences" PINSTECH-PIEAS Nilore Islamabad
23.	24-26 th Nov 2015	Talk: Investigation of enhanced electrical properties of copper doped lithium nickel phosphate	7 th Chemistry Conference 2015 on "Chemistry in Engineering and life Sciences"

		for lithium ion battery application. Misbah Mumtaz*, Paul A. Connor, Naveed Kausar Janjua	PINSTECH-PIEAS Nilore Islamabad
24.	24-26 th Nov 2015	Talk: Electrochemical analysis of interactions between metal- quercetin complexes and 1,4- dinitrobenzene Sehrish Khan*, Naveed Kausar Janjua, Rakhshan Javed	7th Chemistry Conference 2015 on "Chemistry in Engineering and life Sciences" PINSTECH-PIEAS Nilore Islamabad
25.	8 th March 2016	Talk: Potential of LiCoPO ₄ and LiCo _{1-x} Zn _x PO ₄ for methanol electrooxidation Naveed Kausar Janjua*, Javeria Arshad, Misbah Mumtaz, Ibrahim Qazi	ISESCO Women in Science Conference, ISESCOWINS Department of Biochemistry, Quaid-i-Azam University Islamabad, Pakistan
26.	24-25 th Nov 2016	Talk: Robust Electrochemical Sensors Based on TiO ₂ Supported CuO for Methanol and Glucose Oxidation Ayesha Mujtaba, Naveed Kausar Janjua*	2 nd International Chemistry Conference on "Recent Trends in Chemistry" AIOU Islamabad
27.	9 th Dec 2016	One day workshop on EU's higher education program ERASMUS+	European Union Delegation to Pakistan and Higher Education Commission (HEC)
28.	25-27 th Oct, 2017	Invited Talk: Perovskites Materials for Energy Applications Naveed Kausar Janjua*	Impact of Nanoscience on Energy Technologies (NanoSET-2017) Department of Physics, COMSATS Campus CIIT Lahore
29.	25-27 th Oct, 2017	Poster: Ag ₂ O-PrO ₂ Supported on γ -Al ₂ O ₃ Nanocomposites for Electrochemical Applications. Mariam Khan, Naveed Kausar Janjua*, Tariq Yaseen, Misbah Mumtaz, Zareen Akhtar, Ayesha Mujtaba	Impact of Nanoscience on Energy Technologies (NanoSET-2017) Department of Physics, COMSATS Campus CIIT Lahore
30.	22-12-2017	Organized One day interactive seminar on Energy technologies with Prof. Dr Jawwad S. Darr from UCL UK	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
31.	13-02-2018	Organized and hosted one day International interactive seminar on Future Energy Technologies with Prof. Dr. Bin Zhu from KTH Sweden, Prof. Dr. Jung-Sik Kim from Loughborough University UK, Mr. Afzal Farooqi from KTH Sweden	Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
32.	7-8 th Nov 2018	Talk: Doped Perovskite Materials for Energy Applications Dr. Naveed Kausar Janjua	4 th International Chemistry Conference on "Recent Trends in Chemistry" AIOU Islamabad
33.	24 th to 26 th April 2019	Keynote Speaker: Substituted Cerate Materials for Electrocatalysis Applications Naveed Kausar Janjua*	International Conference on Chemical Sciences Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan

34.	24 th to 26 th April 2019	Poster: Mixed Metal Oxide Electrocatalysts for Facile Enzyme-less Glucose Oxidation Ayesha Mujtaba*, Naveed Kausar Janjua	International Conference on Chemical Sciences Department of Chemistry Quaid-i-Azam University Islamabad, Pakistan
35.	27 th -28 th August 2019	Invited Talk Glassy carbon electrode supported with doped lanthanum cerates for electrocatalysis *Naveed Kausar Janjua, Tehmeena Maryum Butt, Safia Erum, Mehwish Khursheed	1 st National Symposium on "Advanced Energy Materials (AEM-2019) PAEC Islamabad Pakistan
36.	27 th -28 th August 2019	Talk: Carbon-Modified Lithium Nickel Phosphate Materials for Electrochemical Devices *Mehwish Huma Nasir, Naveed Kausar Janjua	1 st National Symposium on "Advanced Energy Materials (AEM-2019) PAEC Islamabad Pakistan
37.	27 th -28 th August 2019	Talk: Electrochemical applications of γ -alumina supported Ag_2O for ammonia oxidation Naveed Kausar Janjua, *Tehmeena Maryum Butt	1 st National Symposium on "Advanced Energy Materials (AEM-2019) PAEC Islamabad Pakistan
38.	27 th -28 th August 2019	Poster: $LaCe_{1-x}Cu_xO_3$ Perovskite Oxides for Oxygen Evaluation Reaction. Naveed Kausar Janjua, *Maria Mukhtar	1 st National Symposium on "Advanced Energy Materials (AEM-2019) PAEC Islamabad Pakistan
39.	21 st -22 nd September 2020	Talk: Modern electrochemical methodologies for water splitting	3 rd International Chemistry Conference (ICC) Department of Chemistry, Lahore Garrison University, Lahore
40.	27 th October, 2020	Talk: Facile electrochemical water splitting using alumina supported nanomaterials	1 st National Conference on "Contemporary Issues affecting health and Creativity." Rawalpindi Women University, 6 th Road, Rawalpindi
41.	10 th -11 th February 2022	Invited Talk Electrocatalysis: Recent Prospects Naveed Kausar Janjua*	First International Conference on General Chemistry Islamabad Campus COMSATS University Islamabad, CUI
42.	24 th June- 2022	Invited Talk Electrocatalysis: Energy-effective Prospects	Workshop on "Energy Conversion and Storage (ECS)" Fatima Jinnah Women University, Rawalpindi.
43.	23 rd 25 th October, 2020	Invited Talk Electrocatalysis-Energy Prospects	21 st International, 1 st Inter-Islamic, & 33 rd National Chemistry Conference on Chemical Sciences: Technology, Innovation & Sustainability, Department of Chemistry, Quaid-i-Azam University, Islamabad, Pakistan

Conferences/ Seminars/ Workshops(b) Attended Outside Pakistan		
Period	Title/ Details	Place and Organisation
1-6 th July 2007	Talk: Low Cost Synthesis of NiFe ₂ O ₄ Nanoparticles, International Conference on Materials for Advanced Technology (ICMAT-07) Symposium-P	Suntec Centre, Singapore Material Research Society of Singapore
23-25 th June, 2008	Chemical Lab Safety and Security Workshop	Bangkok Thailand Scandia Labs. US State Department
19 th Dec 2011	The Royal Society of Chemistry (RSC) Solid State Chemistry Group Christmas Meeting, Poster: Misbah Mumtaz*, Naveed Kausar Janjua, Paul Cornnor, John TS Irvine	University of Liverpool UK
19 th Dec 2011	The Royal Society of Chemistry (RSC) Solid State Chemistry Group Christmas Meeting. Poster: Azra Yaqub*, Cristian Savaniu, Naveed K. Janjua and John T.S. Irvine	University of Liverpool UK
2012	Lab safety and security workshops, academic paper writing seminars, lectures from international academia and industry figures in School of Chemistry during Post-Doc	University of St. Andrews Fife Scotland United Kingdom
17 th -21 st March, 2013	Talk: Electrochemical Quantification of Water Soluble Ferrocene Modified Gold Nanoparticles onto Electrode Surface. 12 th Topical Meeting of the International Society of Electrochemistry, ISE, BES Sana Sabahat*, Zareen Akhter, Mathias Brust, Naveed Kausar Janjua	Bochum Germany
18-19 th August 2016	Scientific Workshop on Advanced Materials and Fuel Cell Technology hosted by Professor Bin Zhu (Head of Fuel Cell & Solar Cell Group, EGI, KTH) and Muhammad Afzal (Ph.D. Candidate) KTH	KTH Stockholm Sweden
22 nd August 2016	One day training on the Fiaxell fuel cell tester (EPFL) for recently awarded HEC project	Lausanne Switzerland
23-26 th August 2016	Invited Talk: CuO@TiO ₂ Based Electrochemical Sensor for Methanol and Glucose Oxidation Energy Material and Nanotechnology (EMN) Meeting on Smart and Multifunctional Material	Berlin, Germany
26-28 th July 2017	Talk: Fabrication of CoIr _x /γ-Al ₂ O ₃ Modified Electrode and use in Electrochemical Oxidation of Hydrazine. Naveed Kausar Janjua, Naveeda Firdous 4 th International NANOENERGY 2017 Conference	Aalto University Espoo Helsinki Finland
1 st -3 rd August 2017	Scientific meetings with Professor Bin Zhu (Head of Fuel Cell & Solar Cell	KTH Stockholm Sweden

	Group, EGI, KTH) and Muhammad Afzal (Ph.D. Candidate KTH) for new scientific horizons on advanced materials and fuel cell technology	
14 th -16 th August 2018	Talk: Facile water electrocatalysis on glassy carbon electrode supported with doped lanthanum cerates, Naveed Kausar Janjua International Conference on Energy, Environment and Economics (ICEEE 2017) 14-16 August 2018	Edinburgh UK Edinburgh Conference Centre, Heriot-Watt University, Riccarton, Edinburgh, EH14 4AS, United Kingdom (HEC sponsored)
10 th -11 th September 2018	Invited: Doped Lanthanum Cerate Catalytic Materials for Fuel cell Applications, Video 3 rd International Conference on Battery and Fuel Cell Technology 2018, September 10-11, 2018 London, UK *Naveed Kausar Janjua	Theme: Technological Developments in Improvising Battery and Fuel Cell London UK
29 th October 2021	Invited Talk (online): Functional Materials for Facilitation in Water Oxidation Reaction Naveed Kausar Janjua	International Symposium on the Cooperation and Integration of Industry, Education Research and Application of New Materials China Ministry of Education and Shaanxi Ministry of Education China

Research Projects				
Project Title	Principal Investigator	Amount (Pak Rs.)	Sponsoring Agency	Duration
1. Synthesis and characterization of electroactive materials with emphasis on nanoscale synthetic routes.	PI	70,000	URF/QAU	2005-2006
2. Study of the effect of various chelating agents on synthesis, structural and electrochemical properties of LiMO ₂ (M = Co, Ni, Mn, etc.).	PI	100,000	URF/QAU	2006-2007
3. Spectrophotometric and electrochemical studies of flavonoid-DNA interactions.	PI	95,000	URF/QAU	2009-2010
4. Synthesis and Characterization of olivine type (LiNiPO ₄) and doped analogues.	PI	69000	URF/QAU	2010-11
5. Investigation of interactions of gold nanoparticles with ds.DNA	PI	41,071	URF/QAU	2011-2012
6. Metal complexation of flavonoids: Spectroscopic and electrochemical studies towards drug development	PI	3.6419/M	HEC	Three years 2012-2015

7. Synthesis and characterization of CuO coated materials for catalytic applications.	PI	44,882	URF/QAU	2013
8. Synthesis and aqueous solubilization of metal-flavonoid complex for anticancerous applications	PI	25,088	URF/QAU	2014
9. Preparation and catalytic evaluation of Ir and Ru catalysts supported onto γ -Al ₂ O ₃ for hydrazine decomposition	PI	60,000	URF/QAU	2015
10. Synthesis and characterization of CuO@CeO ₂ catalytic materials for glucose sensing applications	PI	80,000	URF/QAU	2016
11. Electrochemical properties of CuO coated alumina for ammonia oxidation.	PI	100,000	URF/QAU	2016-17
12. Synthesis of aluminum doped lanthanum cerate materials for fuel cell applications	PI	70,000	URF/QAU	2018-19
13. Synthesis of aluminum doped lanthanum cerate materials for electrocatalytic water splitting	PI	62,000	URF/QAU	2019-20
14. Development of materials for fuel cell applications (Completed)	PI	8.074/M	HEC	2016 to 2019
15. Sol-gel Synthesis of High Entropy Oxides for Electrocatalytic Water Oxidation	PI	20000/	URF/QAU	2020-2021
16. Synthesis and Electrochemical Applications of Single-Phase High Entropy Oxides	PI	127073/	URF/QAU	2021-2022

• References

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