Mian Hasnain Nawaz, PhD
Associate Professor
Interdisciplinary Research Centre for Biomedical Materials (IRCBM),
COMSATS University Islamabad, Lahore Campus
+92 346 4389177 (mhnawaz@cuilahore.edu.pk)

Date of Birth: 09-12-1984 (Pakistan)

Spouse: Sara Riaz (PhD)

Children: Hareem Hasnain (F, 9 Y)

Hadia Hasnain (F, 4 Y)

Dr. Hasnain Nawaz earned his PhD in Materials Science and Engineering from East China University of Science and Technology, Shanghai. During his doctoral dissertation he mainly focused on polymer chemistry and porphyrin-fullerene nanocomposites. He was awarded prestigious Fellowship of Chinese Academy of Sciences in 2017-19. He has multidisciplinary research interests in supra-molecular chemistry, advanced carbon materials, metal oxide nanoparticles and their Nanocomposites for potential applications in Sensors, Biosensors, energy storage and energy conversion devices.

Educational Background:

- **CAS Presidential Postdoc Fellow** (**2017-19**) Fabrication of carbon based novel materials for Biomedical Applications with **Prof. Li NIU at CIAC**.
- **Research Visitor** (Oct 2016 to Dec 2016) Fabrication of **nanocomposites** and their application in **electrochemical biosensors** (immunosensors & aptasensors) with **Prof J L MARTY**.
- **PhD**, 2013, "**Polymer Tethered Porphyrin and Fullerene (C_{60}): Synthesis and Self-assembly**" *Materials Science and Engineering*, School of Materials Science and Engineering, East China University of Science and Technology, Shanghai, P. R. China.
- **M.Phil**, 2009, **"Synthesis, Characterization and Biological Studies of Formic Acid and 3-Hydroxy-2-Naphthoic Acid Hydrazides Derived Schiff's Bases and Their Cu(II), Co(II) and Zn(II) Complexes"** *Organic Chemistry*, Institute of Chemical Sciences, Bahauddin Zakariya University, Multan Pakistan.
- **M.Sc**, 2005, **"Adsorption of an-ionic dyes by bentonite (activated & un-activated)"** *Industrial Chemistry*, department of Chemistry, Government College University, Lahore,

Pakistan.

Professional Experience:

2020-04 ~ To date	Associate Professor (**Tenured**), IRCBM, CUI, Lahore.
2013-08 ~ 2020-04	Assistant Professor, IRCBM, CUI, Lahore.
2007-12 ~ 2008-02	Research Officer at University of the Punjab, Lahore conducted the adsorption studies of different biological wastes under higher education Commission's project.
2007-08 ~ 2007-12	Junior Scientist at *R&D* Cell Qarshi Industries Lahore, Pk.
2006-05 ~ 2006-07	Internship in Shaker Gang Sugar Mills, Jhang, Pk.

Personal Skills: Team worker with good communication skills, flexible for different working conditions, innovative, adaptable, optimistic, critical thinker, time management, traveler, avid player of cricket and football.

Awards and Memberships:

- CAS Presidential Postdoc Fellowship 2017-19 (**Prof. Li NIU**) CIAC, Chinese Academy of Sciences, China
- HEC-PERIDOT research visit to **Prof. J L MARTY**'s lab Perpignan, France
- CIIT/CUI Research Productivity Award 2014, 2015, 2016
- Provincial Government Merit scholarship 2003-4 for undergraduate studies
- Member of Pakistan Chemical Society

Administrative Responsibilities:

- Resource Manager IRCBM (Sep 2018 - to date)
- Incharge IRCBM Training Cell May 2015-March 2017 (responsible of conducting nationwide annual Instrumental hands-on trainings and Summer Schools)
- Deputy Chief Proctor of IRCBM (Since March 2014)
- Senior Lab incharge of IRCBM's polymer and composite lab (Oct 2013-Jan 2015)
- Member of Departments Technical Committee for IRCBM's purchases
- Member Organizing Committee Pak-China business forum 2016 and ISBM series

Patents:

- Rapid fluorescence detection method of histamine in spoiled chicken meat *(Filed in Pakistan Patent office)*
- Microwave assisted synthesis of p-hydroxy dipyromethane (DPM) and efficient in situ complexation with ZnO to form DPM-ZnO for Uric acid detection *(Filed in Pakistan Patent office)*

- Silver nanoparticles mediated polyaniline nanofibers for detection of chicken meat spoilage *(Filed in Pakistan Patent office)*

Selected Publications: **(Cumulative IF=390, Citations=1868)**

2024

1. S Tariq, U Saeed, S Riaz, A Saqib, S Khurshid, **M H Nawaz**, ZnO nanoflakes decorated graphene oxide acting as an efficient platform for precise detection of uric acid via rhodamine fluorescence quenching, **Materials Today Communications**, **2024**, 39, 108902
2. J Ashiq, U Saeed, Z Li, **MH Nawaz**, Advances in Meat Spoilage Detection: A Review of Methods Involving 2D-Based Nanomaterials for Detection of Spoiled Meat**, Journal of Food Composition and Analysis**, **2024**, 106295
3. H Asghar, S Bilal, **MH Nawaz**, G Rasool, A Hayat, Host–Guest Mechanism via Induced Fit Fullerene Complexation in Porphin Receptor to Probe Salivary Alpha-Amylase in Dental Caries for Clinical Applications, **ACS Applied Bio-Materials, 2024,** 7, 2, 1250–1259
4. A Tariq, A Arif, M Akram, U Latif, **M H Nawaz**, S Andreescu, H Zhang, A Hayat, Tailoring molecular recognition in predesigned multifunctional enzyme mimicking porphyrin imprinted interface for high affinity and differential selectivity; sensing etoposide in lung cancer patients, **Biosensors and Bioelectronics, 2024**, 245, 115833

2023

5. M Farooq, A Hayat, **MH Nawaz**, MS Hassan, M Nasir, H Ajab, Tuning the Structure and Properties of MoS_2-$SrTiO_3$ Nanocomposite and its Enzyme Mimic Behavior for Enhanced Optical Sensing and Measurement of H_2O_2 in Biological Samples, **Measurement**, **2023**, 216, 112901
6. S Mansoor, S Riaz, **M H Nawaz**, K Ijaz, A A Chaudhry, A Hayat, Growth of diazonium functionalized ZnO nanoflakes on flexible carbon cloth for electrochemical sensing of acetone in the liquid phase, **RSC Advances, 2023**, 13 (17), 11537-11545
7. R Batool, S Riaz, S Bano, A Hayat, M S Nazir, M Nasir, **MH Nawaz**, Fabrication of Polydopamine Decorated Carbon Cloth as Support Material to Anchor CeO_2 Nanoparticles for Electrochemical Detection of Ethanol, **Microchimica Acta, 2022**, 190 (5), 172
8. M Ghafoor, ZU Khan, **MH Nawaz**, N Akhtar, A Rahim, S Riaz, In-situ synthesized ZIF-67 graphene oxide (ZIF-67/GO) nanocomposite for efficient individual and simultaneous detection of heavy metal ions, **Environmental Monitoring and Assessment, 2023,** 195 (3), 423
9. U Amara, K Mahmood, M Khan, **M H Nawaz**, Polypyrrole enwrapped binary metal oxides nanostructures for in-vitro Dopamine detection from lacrimal fluid, **Microchemical Journal, 2023**, 185, 108254.

2022

10. M A H Nawaz, M W Fazal, N Akhtar, **M H Nawaz**, A Hayat, C Yu, Multifunctional Smart ZnSe-Nanostructure-Based Fluorescent Aptasensor for the Detection of Ochratoxin A, **Biosensors, 2022**, 12, 844

11. A S Siddiqui, M A Ahmad, **M H Nawaz**, A Hayat, M Nasir, Decorating Zirconium on Graphene Oxide to Design a Multifunctional Nanozyme for Eco-Friendly Detection of Hydrogen Peroxide**, Catalysis, 2022**, 12, 1105
12. A Tariq, A R Khurram, Sr Rafiq, T Iqbal, A Jamil, S Saqib, A Mukhtar, N Muhammad, A L Khan, **M H Nawaz**, F Jamil, M B K Niazi, A R Afzal, Sq Uz Zaman, Functionalized organic filler based integrated membranes for environmental remediation, **Chemosphere, 2022**, 303, 135073
13. A Noor, H Khalid, M Aslam, A Hayat, AF Khan, M Nasir, AA Chaudhry, **MH Nawaz**, Graphene oxide reinforced silk fibroin nanocomposite as an electroactive interface for the estimation of dopamine, **RSC Adv., 2022**,12, 29319-29328
14. U Amara, K Mahmood, M Hassan, M Hanif, M Khalid, M Usman, Z Shafiq, **MH Nawaz**, Functionalized thiazolidone-decorated lanthanum-doped copper oxide: novel heterocyclic sea sponge morphology for the efficient detection of dopamine, **RSC Advances, 2022,** 12 (23), 14439-14449
15. U Amara, S Rashid, K Mahmood, **MH Nawaz**, A Hayat, M Hassan, Insight into prognostics, diagnostics, and management strategies for SARS CoV-2, **RSC Advances**, **2022**, 12 (13), 8059-8094
16. U Amara, K Mahmood, M Awais, M Khalid, M Nasir, S Riaz, A Hayat, **MH Nawaz**, Nickel Doped Iron Oxide Nanoparticles Conjugated Porphyrin Interface (Porphyrin/Fe2O3@ Ni) for Non-enzymatic Detection of Dopamine from Lacrimal Fluid, **Dalton Transactions**, **2022**, 51 (13), 5098-5107
17. U Amara, B Sarfraz, K Mahmood, MT Mehran, N Muhammad, A Hayat & **MH Nawaz**, Fabrication of ionic liquid stabilized MXene interface for electrochemical dopamine detection, **Microchimica Acta,** 2022, 189, 05162-3
18. M Sabar, U Amara, S Riaz, M Nasir, A Hayat, **MH Nawaz**, Fabrication of MoS2 enwrapped carbon cloth as electrochemical probe for non-enzymatic detection of dopamine, **Materials Letters,** 2022, 308, 131233

2021

19. U Amara, S Riaz, K Mahmood, N Akhtar, M Nasir, A Hayat, M Khalid, M Yaqub, **MH Nawaz,** Copper oxide integrated perylene diimide self-assembled graphitic pencil for robust non-enzymatic dopamine detection, **RSC Advances**, 2021, 11, 25084-95
20. U Amara, M T Mehran, B Sarfraz, K Mahmood, S Riaz, M Nasir, A Hayat, **MH Nawaz**, Perylene diimide/MXene-modified graphitic pencil electrode-based electrochemical sensor for dopamine detection, **Microchimica Acta,** 2021, 188, 1-13
21. U Amara, K Mahmood, S Riaz, M Nasir, A Hayat, M Hanif, M Yaqub, D Han, L Niu, **MH Nawaz**, Self-assembled perylene-tetracarboxylic acid/multi-walled carbon nanotube adducts based modification of screen-printed interface for efficient enzyme immobilization towards glucose biosensing, **Microchemical Journal**, 2021, 165, 106109
22. M Liaqat, S Riaz, **MH Nawaz**, M Badea, A Hayat, JL Marty, Fabrication of electro-active nano-trans surfaces to design label free electrochemical aptasensor for ochratoxin A detection, **Electrochimica Acta**, 2021, 138172
23. A Ahmed, A Hayat, P John, **MH Nawaz**, M Nasir, Coral-shaped tin oxide incorporated graphitic carbon nitride nanosheets as peroxidase mimic for sensitive colorimetric and

fluorescence quenching based detection of hydrogen peroxide, **Journal of Nanostructure in Chemistry**, 2021, 1-17

24. A Ahmed, A Hayat, **MH Nawaz**, AA Chaudhry, P John and M Nasir, Fluorescence quenching mediated detection of hydrogen peroxide using tungsten incorporated graphitic carbon nitride nanoflakes, **RSC Advances, 2021**, 11, 7479-7491
25. S Rashid, **MH Nawaz**, I ur Rehman, A Hayat, JL Marty, Dopamine/mucin-1 functionalized electro-active carbon nanotubes as a probe for direct competitive electrochemical immunosensing of breast cancer biomarker, **Sensors and Actuators B: Chemical**, 2021, 330, 129351
26. S Saqib, S Rafiq, N Muhammad, AL Khan, A Mukhtar, S Ullah, **MH Nawaz**, Sustainable mixed matrix membranes containing porphyrin and polysulfone Polymer for acid gas separations, **Journal of Hazardous Materials**, 2021, 125155

2020

27. M Awan, S Rauf, A Abbas, **MH Nawaz**, C Yang, SA Shahid, N Amin, A sandwich electrochemical immunosensor based on antibody functionalized-silver nanoparticles (Ab-Ag NPs) for the detection of dengue biomarker protein NS1, **Journal of Molecular Liquids**, 2020, 317, 114014
28. S Rashid, **MH Nawaz**, JL Marty, A Hayat, Label free ultrasensitive detection of NS1 based on electrochemical aptasensor using polyethyleneimine aggregated AuNPs, **Microchemical Journal**, 2020, 158, 105285
29. I Liaqat, N Iqbal, M Aslam, M Nasir, A Hayat, DX Han, L Niu, **MH Nawaz**, Co_3O_4 nanocubes decorated single-walled carbon nanotubes for efficient electrochemical non-enzymatic glucose sensing, **SN Applied Sciences**, 2020, 2 (10), 1-12
30. J Tian, B Huang, **MH Nawaz**, W Zhang, Recent advances of multi-dimensional porphyrin-based functional materials in photodynamic therapy, **Coordination Chemistry Reviews**, 2020, 420, 213410
31. A Ahmed, A Hayat, **MH Nawaz**, P John, M Nasir, Graphitic carbon nitride for efficient fluorometric quenching bioassay of hydrogen peroxide: Effect of structure on Properties, **Journal of Photochemistry and Photobiology A: Chemistry**, 2020, 400, 112731
32. R Arshad, A Rhouati, A Hayat, **MH Nawaz**, MA Yameen, A Mujahid, MIP-based impedimetric sensor for detecting dengue fever biomarker, **Applied Biochemistry and Biotechnology**, 2020, 191 (4), 1384-1394
33. A Ahmed, A Hayat, **MH Nawaz**, P John, M Nasir, Oxide nanocomposite probe for highly sensitive and selective turn-off fluorometric detection of hydrogen peroxide, **Journal of colloid and interface science**, 2020, 558, 230-241
34. Ayesha Saleem Siddiqui, Akhtar Hayat, **MH Nawaz**, Muhammad Ashfaq Ahmad, Muhammad Nasir, Effect of sulfur doping on graphene oxide towards amplified fluorescence quenching based ultrasensitive detection of hydrogen peroxide, **Applied Surface Science**, DOI- 10.1016/j.apsusc.2019.144695
35. S Saqib, S Rafiq, N Muhammad, A L Khan, A Mukhtar, N B Mellon, Z Man, **MH Nawaz**, F Jamil, N M Ahmad, Perylene based novel mixed matrix membranes with enhanced selective pure and mixed gases (CO_2, CH_4, and N_2) separation, ***Journal of Natural Gas Science and Engineering***, **2020**, 73, 103072

36. AS Siddiqui, MA Ahmad, **MH Nawaz**, A Hayat, M Nasir, Nitrogen-doped graphene oxide as a catalyst for the oxidation of Rhodamine B by hydrogen peroxide: application to a sensitive fluorometric assay for hydrogen peroxide, **Microchimica Acta** 187 (1), **2020**, 47

2019

37. **MH Nawaz**, J Xu, Z Song, S Riaz, DX Han, L Niu, N-Doped Graphene Oxide Decorated with PtCo Nanoparticles for Immobilization of Double-Stranded Deoxyribonucleic Acid and Investigation of Clenbuterol-Induced DNA Damage, **ACS Omega**, **2019**, 4, 15, 16524-16530
38. A Ahmed, A Hayat, **MH Nawaz**, P John, M Nasir, Construction of sponge-like graphitic carbon nitride and silver oxide nanocomposite probe for highly sensitive and selective turn-off fluorometric detection of hydrogen peroxide, **Journal of Colloid and Interface Science,** 2019, 558, 230-241
39. F Han, Z Song, **MH Nawaz**, M Dai, D Han, L Han, Y Fan, J Xu, DX Han, L Niu, MoS_2/ZnO Heterostructures based label free, visible light excited photoelectrochemical sensor for sensitive and selective determination of synthetic antioxidant propyl gallate, **Analytical Chemistry**, 2019, 91, 16, 10657-10662
40. A Ahmed, P John, **MH Nawaz**, A Hayat, M Nasir, Zinc-Doped Mesoporous Graphitic Carbon Nitride for Colorimetric Detection of Hydrogen Peroxide, **ACS Applied Nanomaterials,** 2019, 28, 5156-5168
41. R Batool, MA Akhtar, A Hayat, D Han, L Niu, MA Ahmad, **MH Nawaz**, A nanocomposite prepared from magnetite nanoparticles, polyaniline and carboxy-modified graphene oxide for non-enzymatic sensing of glucose, **Microchimica Acta,** 2019**,** 186 (5), 267
42. S Saqib, S Rafiq, N Muhammad, AL Khan, A Mukhtar, NB Mellon, Z Man, **MH Nawaz,** F Jamil, NM Ahmad, Perylene based novel mixed matrix membranes with enhanced selective pure and mixed gases (CO_2, CH_4, and N_2) separation, **Journal of Natural Gas Science and Engineering,** 73, 103072
43. MA Akhtar, R Batool, A Hayat, DX Han, S Riaz, SU Khan, M Nasir, **MH Nawaz,** L Niu, Functionalized Graphene Oxide Bridging Between Enzyme and Au Sputtered Screen Printed Interface for Glucose Detection, **ACS Applied Nanomaterials,** 2019, 2 (3), pp 1589–1596
44. R Batool, A Rhouati, **MH Nawaz**, A Hayat, JL Marty, A Review of the Construction of Nano-Hybrids for Electrochemical Biosensing of Glucose, **Biosensors**, 2019, 9 (1), 46
45. SU Khan, J Du, Y Ma, M Akhtar, **MH Nawaz**, J Peng, S Cheng, Y Zhao, L Yangguang, Keggin type butterfly core phosphate-bridged poly-nuclear copper (II) complex photo/bi-functional electro-catalytic material, **Inorganic Chemistry Communications**, 2019, 100, 21-26
46. K Ilyas, S Zahid, M Batool, A A Chaudhry, A Jamal, F Iqbal, **MH Nawaz**, O Goerke, A Gurlo, A T Shah, I U Rehman, In-vitro investigation of graphene oxide reinforced bioactive glass ceramics composites**, Journal of Non-Crystalline Solids**, 2019, 505, 122-130
47. J Xu, F Li, D Wang, **MH Nawaz**, Q An, D Han, Li Niu, Co_3O_4 nanostructures on flexible carbon cloth for crystal plane effect of nonenzymatic electrocatalysis for glucose, **Biosensors and Bioelectronics**, 2019, 123, 25-29

2018

48. F Zarif, S Rauf, MZ Qureshi, NS Shah, A Hayat, N Muhammad, A Rahim, **MH Nawaz**, M Nasir, Ionic liquid coated iron nanoparticles are promising peroxidase mimics for optical determination of H_2O_2, **Microchimica Acta**, 2018, 185 (6), 302
49. Z Song, W Li, Y Bao, Z Sun, L Gao, **MH Nawaz**, D Han, L Niu, Enhanced pseudocapacitance and electrolyte-wettability of graphene hydrogels to tailor high mass loading all-solid-state supercapacitor with ultra-high volumetric energy density, **Carbon**, 2018, 136, 46-53
50. **MH Nawaz**, A Hayat, G Catanante, U Latif, JL Marty, Development of a portable and disposable NS1 based electrochemical immunosensor for early diagnosis of dengue virus, **Analytica Chimica Acta,** 2018, 1026, 1-7 (*FRONT COVER*)
51. **MH Nawaz**, G Catanante, JL Marty, A Hayat, One step growth of electro-assisted BSA functionalized screen-printed carbon interface with improved antifouling characteristics, **Journal of Electroanalytical Chemistry**, 2018, 816, 107

2017

52. MA Akhtar, A Hayat, N Iqbal, JL Marty, **MH Nawaz**, Functionalized graphene oxide–polypyrrole–chitosan (fGO–PPy–CS) modified screen-printed electrodes for non-enzymatic hydrogen peroxide detection, **Journal of Nanoparticle Research**, 2017, 19 (10), 334
53. M Nasir, S Rauf, N Muhammad, **MH Nawaz**, A A Chaudhry, MH Malik, SA Shahid, A Hayat, Biomimetic nitrogen doped titania nanoparticles as a colorimetric platform for hydrogen peroxide detection, **Journal of Colloid and Interface Science**, 2017, **505**, 1147-1157
54. M Rupeesh, **MH Nawaz**, A Hayat, MAH Nawaz, V Sharma, JL Marty, Electrospinning of graphene-oxide onto screen printed electrodes for heavy metal biosensor, **Sensors and Actuators B: Chemical,** 2017, **247**, 366-373
55. M Nasir, **MH Nawaz**, U Latif, M Yaqub, A Hayat, A Rahim, An overview on enzyme-**mimicking nanomaterials** for use in electrochemical and optical assays, **Microchimica Acta,** 2017, **184**, 323-342
56. MA Akhtar, S Riaz, A Hayat, M Nasir, N Muhammad, A Rahim, **MH Nawaz**, Poly (ethylene oxide) Tethered trans-Porphyrin: Synthesis, Self-assembly with Fullerene (C_{60}) and **DNA** Binding Studies, ***Journal of Molecular Liquids*****,** 2017, **225**, 235–239

2013-16

57. MAH. Nawaz, S Rauf, G Catanante, **MH Nawaz**, G Nunes, JL Marty, A Hayat. "One Step Assembly of Thin Films of Carbon Nanotubes on Screen Printed Interface for Electrochemical **Aptasensing** of Breast Cancer Biomarker" ***Sensors*****,** 2016, **16**, 1651
58. S Riaz, W Feng, AF Khan, **MH Nawaz** "Sonication-induced **self-assembly** of polymeric porphyrin–fullerene: Formation of nanorings" ***J. Appl. Polym. Sci.,*** 2016, **133**, 43537
59. S Riaz, M Nasir, J Iqbal, **MH Nawaz**, Polystyrenic **porphyrins** as catalysts for alkane oxidation" ***Research on Chemical Intermediates*****,** 2015, **41,** 6283-6287
60. F Wang, X Lei, **MH Nawaz**, F Liu, W Zhang "**Morphology** controlled **supramolecular** assemblies via complexation between (5, 10, 15, 20-tetrakisphenyl-porphine) zinc and 4, 4'-bipyridine: from nanospheres to microrings" ***RSC Advances***, 2014, **4**, 61378-61382

61. **MH Nawaz**, S Riaz, F Liu, Atomic Force Microscopic Investigations of Fibrils Formed by Complexation bf Monochelic Polystyrenic **Porphyrin** and PEGylated **Fullerene** (C_{60}), ***Journal of Dispersion Science and Technology***, 2014, **35**, 753-756
62. **MH Nawaz**, L Xu, F Liu, X Wang and W Zhang, Continuous Fibrils from the Self-Assembly of Monochelic **Polymeric Porphyrin** and Fullerene, ***RSC Advances*****,** 2013, **3**, 9206-9
63. **MH Nawaz**, J Liu, F Liu, X Wang, W Zhang, **Synthesis** of Porphyrinic polystyrenes and their Self-assembly with Pristine Fullerene (C_{60}), ***Materials Letters*****,** 2013, **91**, 71-4
64. S Riaz, W Ma, C Jing, **MH Nawaz**, DW Li and YT Long, Thiol-ubiquinone assisted fragmentation of **gold nanoparticles**, ***Chemical Communication***, 2013, **49**, 1738-1740
65. S Wang, Q Shen, **MH Nawaz** and W Zhang, Photocontrolled reversible supramolecular assemblies of a diblock azo-copolymer based on β-cyclodextrin-Azo **host-guest** inclusion complexation, ***Polymer Chemistry,*** 2013, **4**, 2151-7
66. M Hussain, Z Shafiq, **MH Nawaz**, MA Shad, H Nawaz, M Yaqub, HB Ahmad, Synthesis, Characterization and Biological Evaluation of Some Novel Hydrazide Schiff's Bases and Their Metal Complexes, ***Asian Journal of Chemistry***, 2013, **25**, 2668-2672

Book Chapters:

- G Nunes, **MH Nawaz**, A Hayat, JL Marty, New trends on monitoring and diagnosis for health sciences, LAMBERT Academic Publisher, 2015
- S Rashid, U Amara, K Mahmood, **MH Nawaz**, A Hayat, Nanobioengineering Approach for Early Detection of SARS‐CoV‐2, Detection and Analysis of SARS Coronavirus: Advanced Biosensors for Pandemic Viruses and Related Pathogens (ISBN: 9783527349180)" CM Hussain, SK Shukla, (Editor) publishing by Wiley-VCH Verlag Gmbh, Germany, 1. Edition August 2021, 280.
- S Riaz, Y Aman, M Nasir, A Hayat, **MH Nawaz**, Metal Oxide-Carbon Hybrid Materials, Electrical conductivity of Metal Oxides-Carbon composites, (Multi-Volume SET) - ELSEVIER, 2021

Conferences:

- M H Nawaz "Morphologically Distinct Nanomaterials Improving the Diagnostics of Meat Freshness" an Invited Talk at 6th International conference on Recent Trends in Chemistry (14-15 Feb 2024) Allama Iqbal Open University, Islamabad (**Invited Talk**)
- M H Nawaz "Biomimicking Nanomaterials as Smart Diagnostic Tools" An international Multidisciplinary conference on Innovations in Biochemistry, Veterinary, Medicine & pharmacology (6-7 Feb 2023), CUVAS, Bahawalpur (**Invited Talk**)
- Fabrication of electro-active nano-trans surfaces to design label free electrochemical aptasensor for ochratoxin A detection, M Liaqat, S Riaz, **MH Nawaz**, M Badea, A Hayat, JL Marty, 18th ISEAC (The Eighteenth International Symposium on Electroanalytical Chemistry) 2021, Changchun, Jilin, China **(Oral)**
- M H Nawaz, "Self-assembly of perylene-CNT for the assessment of Clenbuterol

induced dsDNA damage" 31st Academic Annual Conference of the Chinese Chemical Society, 5-8 May 2018 Hangzhou, China (**Oral**)

- Conducting polymer/functionalized graphene oxide/chitosan nanocomposite for hydrogen peroxide detection, Analytical Chemistry Society China, Xian China, 21-22 Sep 2017 (**Oral**)
- M H Nawaz "Fabrication of SiO2/C/Co3O4 based electrochemical sensor for sensing dopamine a biomarker of Parkinson disease" presentation at 5th International Symposium on Biomedical Materials, 14-16 December 2016, Lahore, Pakistan (**Oral**)
- C_{60}/Graphene based nanofibers for biomedical applications, 17-20 Dec 2014, 4th ISBM, IRCBM, CIIT Lahore (**Oral**)
- Porphyrin and Fullerene (C_{60}) Polymers and Self-assembly Morphology, 28-30 Oct 2013, 12th International and 24th National Chemistry Conference, BZU Multan. (**Oral**)
- Metal Oxides decorated Carbon nano tubes for Non-enzymatic Glucose Sensing, Iqra Liaqat, Mariam Sabar, Umay Amara, Muhammad Aslam, Muhammad Nasir, Mian Hasnain Nawaz, 7th ISBM Lahore, Dec 11-12, 2019 **(Poster)**
- Self-assembled perylene/CNT adducts based screen printed interface for efficient enzyme immobilization towards glucose biosensing, Umay Amara, Iqra Liaqat, Khalid Mahmood, Mian Hasnain Nawaz, 7th ISBM Lahore, Dec 11-12, 2019 **(Poster)**
- Facile Fabrication of Au-sputtered Disposable Electrodes for Glucose Sensing, Muhammad Asim Akhtar, Razia Batool, Akhtar Hayat, MustansaraYaqub, Usman Latif, Mian Hasnain Nawaz, 6th ISBM 2017 Lahore **(Poster)**
- Synthesis of Functionalized Graphene Oxide / Iron Oxide NPs / Pani Nano-composite for Non-enzymatic Detection of Glucose, Razia Batool, Muhammad Asim Akhter, Dr. Akhtar Hayat*, Dr. Abdur Rahim, Dr. Muhammad Nasir, Dr. Mian Hasnain Nawaz, 6th ISBM 2017 Lahore **(Poster)**
- Synthesis and characterization of bioresorbable graphene-gelatin functionalized polycarpolactone based bionanocomposites for regenerative studies, 25-27 Oct 2014, 3rd ASEAN-Pak Conference on Materials Science 2014 (**Poster**)
- Disposable and Portable Electrochemical Bio-Device for Probing Phosphates Activity in Medical Applications, 17-20 Dec 2014, 4th ISBM, IRCBM, CIIT Lahore (**Poster**)

Funded Projects:

- **PI** of "Setting up the disposable electrode printing workstation and fabrication of printable electrodes for efficient detection of glucose"
  (2.2 M PKR_**On-going _PSF Pakistan**)
- **PI** of "Indigenously Fabricated Smart Food Packaging for Spoilage Indication"
  (7.14 MPKR_**On-going_NRPU HEC Pak**)
- **PI** of "Sonication induced self-assembly of polymeric porphyrin-fullerenes adducts and their drug delivery assessment" (0.358 M PKR_**COMPLETED_SRGP HEC**)

- **PI** of "Electrospun nanofibers modified carbon electrode for glucose detection: a USB Doctor" (5.8 M PKR_**COMPLETED_NRPU HEC**)
- **PI** of "Functionalization of Graphene with metal nanoparticles for biosensing and catalytic applications" (0.15 M PKR_**COMPLETED_CUI**)
- **Co-PI** of "Magnetic Nanoparticles-Decorated Functionalized Graphene Sheets for Energy Storage Applications" **(Completed-COMSTECH-TWAS)**

Thesis Supervised:

- Rizwana Ameen (GCUF 2014-15), Synthesis of Tetraphenylporphyrin, Metal Complexes of Tetraphenyl porphyrin and their Applications towards Oxidation Reactions (**MS** Chemistry completed)
- Razia Batool (CUI Lhr 2016-17) Fabrication of Non-Enzymatic Glucose Biosensor Based on Functionalized Graphene Oxide/Metal Oxide /Polymer Composite (**MS** Physics completed)
- Iqra Liaqat (EU Lhr 2018-19) Metal oxides decorated carbon nanotubes for non-enzymatic glucose detection (**MS** Chemistry completed)
- Mazhar Husain, Synthesis and self-assembly of perylene onto carbon interface for biosensing applications (**MS** Chemistry completed)
- Umey Ammara, Synthesis and Characterization of Organic/In-organic nanohybrids as efficient probes for Sensing and biosensing applications, 2010-bzbs-4y-207 (**PhD** Thesis, Registered)
- Mariam Sabar, Fabrication of flexible non-enzymatic biosensor based on modified carbon cloth, SP19-R06-002 (**MS** Chemistry completed)
- Adeel Butt, Synthesis and Characterization of Dipyrromethanes and their Metal Complexes for Glucose Detection (**MS** Chemistry completed)
- Muhammad Hassan Ahmad, Synthesis and Characterization of Fluorescent Quantum Dots as Probes to Study Radiation Induced ds-DNA Damage (**MS** Chemistry completed)
- Hamna Akram, Silver nanoparticles based smart packaging materials for detection of Meat Spoilage (**MS** Chemistry completed)
- Rabia Batool, Synthesis and Characterization of Cerium Oxide Nanorods on Surface of Polydopamine Coated Carbon Cloth for Ethanol Detection (**MS**, Chemistry Completed)

- Gulshan Jabeen, Synthesis and Characterization of Fluorescent Probes for Detection of UV Induced DNA Damage (**MS** Chemistry, Completed)
- Sunnia Tariq, Synthesis and Characterization of 2D materials-based nanocomposites for Biosensing applications (**MS** Forensic Sciences, Completed)
- Unzila Saeed, A Porphyrin based Estimation of Histamine Towards Detection of Meat Spoilage (**MS** Forensic Sciences, registered)
- Unzila Saeed, A Porphyrin based Estimation of Histamine Towards Detection of Meat Spoilage (**MS** Chemistry CUI, Completed)
- Javaria Ashiq, Metal nanoparticles decorated carbon materials for estimation of meat spoilage (**MS** Chemistry CUI, Completed)
- Afaq Ahmed Mir, Synthesis and Characterization of MoS_2 Based Electrode for Biosensing Applications (**MS** Physics CUI, Completed)
- Unzila Saeed, MXene based noval nanocomposites for applications in sensors and biosensors (**PhD** Chemistry CUI, Registered)
- Aeyza Kashif, synthesis of probe materials for meat spoilage detection (**MS** Chemistry CUI, Registered)
- Hania Humayun, Synthesis and characterization of lactate responsive materials as wearable sensors for lactate from sweat (**MS** Chemistry LCWU, Registered)
- Muhammad Shehzad, functionalized electrospun nanofibers for fabrication of pressure sensors (**MS** Chemistry University of the Punjab, Registered)

References:

- Prof. Jean-Louis MARTY
  BIOMEM, Universite´ de Perpignan, Perpignan Cedex, France
  Tel: +33 4 68 66 22 54, jlmarty@univ-perp.fr

- Prof. Weian ZHANG
  School of Chemistry and Molecular Engineering,
  East China University of Science and Technology, Shanghai, China
  Tel: +86-13601689827, wazhang@ecust.edu.cn

- Prof. Li NIU
  Center for Advanced Analytical Science, School of Chemistry and Chemical Engineering, Guangzhou University, Guangzhou, China
  Tel.: +86-431-8526 2425, Email: lniu@gzhu.edu.cn