

Curriculum Vitae

Dr. MONAZZA SERWAR

PhD (Chemistry)

Specialization: Organic Chemistry

Quaid-I-Azam University, Islamabad

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RESEARCH INTERESTS

1. Synthesis, Characterization (FTIR, NMR, GC-MS) and Biological Screening of Heterocycles (triazoles, oxazoles, thiazoles)
2. Synthesis of nanomaterials via high temperature carbonization, hydrothermal treatment and wet chemical routes
3. Physicochemical characterization using advanced characterization tools (FTIR, Raman, XRD, XPS, BET/BJH, SEM, TEM, EDS)
4. Electrochemical characterization via CV, GCD and Impedance
5. Testing for Energy storage devices such as Supercapacitors, and Batteries
6. Testing for Energy conversion: Electro-catalysis via LSV and Chronoamperometry
7. Photo-catalysis

PERSONAL

Husband's Name: Farhan Basharat
Date of Birth: 18/10/1981
N.I.C No: 37301-2132403-4
Marital Status: Married

Gender: Female
Religion: Islam
Domicile: Punjab
Nationality: Pakistan

ACADEMIC RECORD

Degree	Session	Major Subjects	%/ Division	University/Board
Ph.D	2019	Organic Chemistry	Non-graded	Q.A.U Islamabad
M.Phil	2007	Organic Chemistry	3.7 CGPA	Q.A.U Islamabad
M.Sc	2005	Organic Chemistry	76.7(1 st div.)	Q.A.U Islamabad
B.Sc	2003	Chemistry, Zoology, Botany	65.0(1 st div.)	Punjab University Lahore
F.Sc	2001	Pre. Medical	74.9(1 st div.)	B.I.S.E. Rawalpindi
S.S.C	1998	Science	82.8 (1 st div.)	B.I.S.E. Rawalpindi
Thesis entitled	M.Phil	"Synthesis, Characterization and Biological Screening of Chiral Five Membered Heterocycles" (2006-07).		
	Ph.D	"Nitrogen Doped Carbon materials (NDCMs) from Organic Ionic Salts and Biopolymer Resources for Supercapacitor Application" (2012-2019).		

INTERNATIONAL RECOGNITION

Recognition as **Associate Fellow** (Fellowship Reference: PR241492) awarded on 13-7-2022 by HE Advance UK. The aim of the Fellowship is to demonstrate a personal and institutional commitment to professionalism in learning and teaching in higher education and offers the fellowship awardees a distinct professional standing.

TEACHING/ RESEARCH EXPERIENCE

- ❖ **Assistant Professor (TTS)** at Department of Chemistry, Women University Mardan (13-4-2023 to date)
- ❖ **Assistant Professor (Fixed Pay)** at Department of Chemistry, Women University Mardan (14-9-2022 to 12-4-2023, 07-2-2022 to 31-8-2022 & 14-9-2021 to 2-2-2022)
- ❖ **IPFP Fellow** at Department of Chemistry, Women University Mardan (4-9-2020 to 3-9-2021)
- ❖ **Visiting Faculty** at College of Electrical and Mechanical Engineering, National University of Sciences and Technology (NUST), Islamabad (03-9-2019 to 14-2-2020).
- ❖ **Honorary Research Assistant** at Stephenson Institute of Renewable Energy Technologies (SIRE), University of Liverpool, United Kingdom (11-1-2016 to 21-6-2016).
- ❖ **Assistant professor** at National University of Sciences and Technology (NUST), Islamabad (20-3-2013 to 06-01-2016).
- ❖ **Lecturer** at National University of Sciences and Technology (NUST), Islamabad (17-11-2008 to 19-03-2013).
- ❖ **Research Associate** in HEC research project (20-674/R&D/06/1764) at Quaid-I-Azam University, Islamabad Pakistan (01-09-2006 to 31-08-2007).

AMINISTRATIVE EXPERIENCE

- ❖ Additional Charge of **Additional Director** at Quality Enhancement Cell, Women University Mardan (1st December. 2021 to 14-4-2023)
- ❖ Additional Charge of **Officer In-charge Chemical Store**, SCME, National University of Sciences & technology, Islamabad

SERVICE ACTIVITY

Women University Mardan

- ❖ Self-Assessment of Academic Programs, SAR Reports
- ❖ Conduct of Self-Institutional Performance Evaluation & IPE Reports Writings
- ❖ Preparation & Conduct of QAA-HEC recommended Online Surveys
- ❖ Compilation of University Wide Data
- ❖ Compilation & Submission of University Portfolio Reports (2021-2022 & 2022-2023),
- ❖ Organizing of Capacity Building Trainings
- ❖ Application Submission for International Rankings; Impact Ranking & UI Green Metric World University Ranking
- ❖ Chief Editor of Newsletter of Quality Enhancement Cell Women University Mardan for 2021-2023

- ❖ Chief Editor of Proceedings Booklet of Two Day International Workshop on Nuclear Magnetic Resonance Spectroscopy
- ❖ Preparation of Lab Manual of Organic Chemistry
- ❖ Convener, Job Fair Committee, Women University Mardan
- ❖ Member, Student Advisory Committee, Women University Mardan
- ❖ Assessment Team Member of Quality Enhancement Cell, Women University Mardan
- ❖ Member of QEC-11S Team
- ❖ Focal Person for *Venue & Stage Preparation/ Decoration Team* for 1st Convocation of Women University Mardan, March 2023.
- ❖ Admission Team Member

National University of Sciences & Technology, Islamabad

- ❖ Member of NUST Admission Team for Preparation & review of Question papers of Entry Tests
- ❖ Procurement & Inventory of Chemicals, Glassware and Apparatus
- ❖ Faculty Coordinator for Organizing Faculty Coordination Meetings & Minutes writing

TRAININGS/WORKSHOPS ORGANIZED

- ❖ **Chair Organizing Team**, One-Day Seminar on Establishment of Quality Enhancement Cells at Affiliated Colleges, at Main Campus, Women University Mardan (15th June, 2023).
- ❖ **Chair Organizing Team**, An introductory seminar on HEC Journal Recognition System, at Main Campus, Women University Mardan (10th February, 2023).
- ❖ **Chair Organizing Team**, Training Workshop on HEC Digital Library, at Bakhshali Campus, Women University Mardan (8th February, 2023).
- ❖ **Chair Organizing Team**, Training Workshop on HEC Digital Library, at Main Campus, Women University Mardan (10th February, 2023).
- ❖ **Chair Organizing Team**, One-Day Seminar on Institutional performance Evaluation at Women University Mardan (26th January, 2023).
- ❖ **Chief Organizer** for Assessment Teams Meeting for 15x academic departments Women University Mardan (14 June, 2022)
- ❖ **Chair organizing Committee** of One-Day Training Workshop on Self-Assessment Report Writing for the Faculty Members of Women University Mardan (Main & Bakhshali Campuses) and its Affiliated Colleges, (11 May, 2022).
- ❖ **Chair Organizing Committee** of Workshop entitled “Two-day Online Workshop on Fundamentals and Applications of NMR Spectroscopy” at Department of Chemistry, Women University Mardan (26-27 October, 2021)
- ❖ **Supervision & Review of Self-Assessment Reports** of 15x Academic Programs at Women University Mardan for the Assessment Year 2021-2022
- ❖ **Supervision & Review of Institutional Performance Evaluation Report** of Women University Mardan for the Assessment Year 2021-2022.
- ❖ Development, conduct & Analysis of **Online Surveys**; Teacher Evaluation, Student Course Review, Faculty Survey, Graduating Student Survey
- ❖ **Resource Person in Orientation Session-I on Self-Assessment Report Writing** for the Faculty Members of Main campus of Women University Mardan on 11 March, 2022.

- ❖ **Resource Person** in **Orientation Session-I on Self-Assessment Report Writing** for the Faculty Members of Bakhshali campus of Women University Mardan on 14 March, 2022.
- ❖ **Resource Person** in Orientation Session-II on Self-Assessment Report Writing for the Faculty Members of Main campus of Women University Mardan on 30 March, 2022.
- ❖ **Resource Person** in Orientation Session-II on Self-Assessment Report Writing for the Faculty Members of Bakhshali Campus Women University Mardan on 31 March, 2022.

COMMUNITY SERVICES

- ❖ **Judge** in Science Exhibition (Model & Poster competition) organized by Science Society of Women University Mardan (June 6, 2022)
- ❖ **Presiding officer** in Proctorial Board Election At WUM, 2022
- ❖ **Judge** in Annual Naat Competition, 12th Rabi ul Awal 1443 Hijri/2021 organized by District Education Office, Mardan at WUM

AWARDS

- ❖ *Associate Fellowship* (Fellowship Reference: PR241492) by HE Advance UK on 13-7-2022
- ❖ *Award of Shield of Chair Organizing Committee* at “Two-day Online Workshop on Fundamentals and Applications of NMR Spectroscopy” at Department of Chemistry, Women University Mardan (26-27 October, 2021)
- ❖ *Certificate of Appreciation of Participation as Instructor* at “Two-day Online Workshop on Fundamentals and Applications of NMR Spectroscopy” at Department of Chemistry, Women University Mardan (26-27 October, 2021)
- ❖ *Award of Start-up Research Grant (SRGP)* worth One Million rupees by Higher Education Commission of Pakistan (15 Jan, 2021)
- ❖ *Award of IPFP Fellowship* by Higher Education Commission of Pakistan (1 September, 2020)
- ❖ *Best Talk Award* at Summer U.K. Northwest ECS Symposium, University of Liverpool, UK (15 June, 2016)
- ❖ *Award of Fellowship under International Research Support Initiative Program (IRSIP)* by Higher Education Commission of Pakistan

PROJECTS

- ❖ A project entitled; Launching of Mentorship Program for the Young Women of Mardan District of Khyber Pakhtunkhwa (*worth Five Million PKR*) has been submitted to Ministry of Planning, Development and Special Initiatives under Pakistan Innovation Fund.
- ❖ A research project entitled; *Nitrogen-Doped Carbon Materials from Nitrogen Rich Precursors (Chicken Feathers) for Super Capacitor Application (worth One Million PKR)* sponsored by Higher Education Commission under Startup Research Grant Scheme (SRGP) has been completed.

RESEARCH COLLABORATIONS

- ❖ Dr. Shahid Hameed, Dean/Professor, Department of Chemistry, Quaid-I-Azam University, Islamabad
- ❖ Dr. Erum Pervaiz, Associate Professor, School of Chemicals and Material Engineering (SCME), National University of Sciences and Technology (NUST), Islamabad, Pakistan
- ❖ Dr. Habib Nasir, Professor, School of Natural Sciences (SNS), National University of Sciences and Technology (NUST), Islamabad.
- ❖ Dr. Laurence Hardwick, Stephenson Institute of Renewable Energy, University of Liverpool, UK.
- ❖ Dr. Saira Arif, Associate Professor, Department of Chemistry, COMSATS Islamabad
- ❖ Dr. Saba Ashraf, Assistant Professor, Department of Chemistry, Rawalpindi Women University, Rawalpindi
- ❖ Dr. Naila Khalid, Assistant Professor, Department of Chemistry, Kohat University
- ❖ Dr. Abbas Khan, Professor, Department of Chemistry, Abdul Wali Khan University, Mardan
- ❖ Dr. Kalsoom, Assistant Professor, Department of Chemistry, ARID Agriculture University, Rawalpindi
- ❖ Dr. Lubna Rasheed, Associate Professor, Department of Chemistry, University of Education, Attock Campus.
- ❖ Dr. Irshad, Professor, Department of Chemistry & Chemical Engineering, Lahore University of Management Sciences (LUMS), Lahore

PUBLICATIONS

- ❖ **Monazza Serwar**, Rakhshinda Sadiq, Usman Ali Rana, Humaira M. Siddiqi, Arturas Adomkevicius, Jose A. Coca-Clemente, Filipe Braga, Laurence J. Hardwick, *A Green Approach for the Synthesis of Hierarchical Porous Nitrogen-doped Carbon based Electrodes for Supercapacitors* **Manuscript completed.**
- ❖ Monazza Serwar, Usman Ali Rana, Humaira M. Siddiqi, Arturas Adomkevicius, Jose A. Coca-Clemente, Laura Cabo-Fernandez, Filipe Braga, Laurence J. Hardwick. Systematic investigation of experimental parameters on nitrogen doped carbon materials via high temperature carbonization towards high performance electrochemical supercapacitors, **Manuscript completed.**
- ❖ Tahira Kanwal, Monazza Serwar, Aalia Manzoor, Humaira Masood Siddiqi, Asma Iqbal, “*Synthesis and Characterization of Hybrids Membranes based on Flexible Polyimide and Graphene Modified-Sulphonated Polyimide*” Polymer bulletin (IF= **2.89**) **Submitted (POBU-D-23-00556).**
- ❖ Naila Khalid, Humaira Masood Siddiqi, O.Ok. Park, Safer Ahmed, **Monazza Serwar**, “*Bromophenoxy Substitution Effect on Thermal and Optoelectronic Properties of Triphenylamine Based Copolyimides*”, Chemistry Select, Published on 10-07-2023, (IF=2.307) X-Category,
- ❖ Shazma Habib, **Monazza Serwar**, Humaira M. Siddiqi, Usman Ali Rana, Faroha Liaqat, Aiman Shabbir; “*A Photocatalytic Dye-Degradation Study on Methylene Blue by Graphitic Nitride based Polyimides Synthesized via a Facile Thermal-Condensation Approach*”, Journal of Environmental Chemical Engineering, published on 19-04-2022, (IF= 7.96) W-Category.
- ❖ Madeeha Tariq, **Monazza Serwar**, Saba Ashraf, Tariq Yasin, Humaira M. Siddiqi, “*Synthesis of New Allyl Endcapped Crosslinker and its Influence on Various properties of Crosslinked High Density Polyethylene*”, Polymer Bulletin, Published on 03-04-2021, (IF=**2.89**) X-Category

- ❖ Shazma Habib, **Monazza Serwar**, Usman Ali Rana, Humaira M. Siddiqi, et.al., “A (*Solvent free*) Approach to Metal free Photo-catalysts for Methylene blue Degradation”, Iranian Polymer Journal, Published on 8-07-2021 (IF=**1.899**) X-Category
- ❖ **Monazza Serwar**, Usman Ali Rana, Humaira M. Siddiqi, Salah Ud-Din Khan, Fekri A. Ahmed Ali, Ahmed Al-Fatesh, Arturas Adomkevicius, Jose A. Coca-Clemente, Laura Cabo-Fernandez, Filipe Braga, Laurence, “*Template-free synthesis of nitrogen doped carbon materials from an organic ionic dye (Murexide) for supercapacitor application*”, RSC Advances, 2017, 7, 54626 – 54637 (IF= **2.936**) W-Category
- ❖ Farhan Basharat, Usman Ali Rana, Mohammad Shahid and **Monazza Serwar**, “*Heat treatment of electrodeposited NiO films for improved catalytic water oxidation*”, RSC Adv., 2015, 5, 86713. (IF= **3.289**)
- ❖ **Monazza Serwar**, Tashfeen Akhtar,1 Shahid Hameed, and Khalid M. Khan, “*Synthesis, urease inhibition and antimicrobial activities of some chiral 5-aryl-4-(1-phenylpropyl)-2H-1,2,4-triazole-3(4H)-thiones*” ARKIVOC, 2009 (vii) 210-221 (IF= **1.09**) Y-Category
- ❖ **Monazza Serwar**, M. Khawar Rauf, Masahiro Ebihara and Shahid Hameed, “*(R)-1-(4-Bromobenzoyl)-4-(1-phenylpropyl) thiosemicarbazide*” Acta Cryst. E64, o812, (2008). (IF= **0.367**)

PROFESSIONAL TRAININGS/CONFERENCES/WORKSHOPS PARTICIPATED

- ❖ **Participation** in Two Days Training Workshop on, Drug Designing Tools organized by Rawalpindi Women University, Rawalpindi (16-17 August, 2023)
- ❖ **Participation** in International Seminar on, Pakistan Growing Global Impact: A Data Master Class by Times Higher Education organized by HEC Pakistan (25 January, 2023)
- ❖ **Poster Presentation** at Youth Tech Festival organized by Directorate General of Science & Technology, Khyber Pakhtunkhwa (3 March, 2022). Topic: Controlled Pyrolysis of Waste Chicken feathers: An Economic, Sustainable & Environmental Friendly Approach towards the Materials Development for Energy Storage Devices & Other Consumer Electronics
- ❖ **Participation** in One Day training Workshop on Mendeley as Electronic Reference Management Tool organized by Pakistan Scientific & Technological Information Peshawar Centre and Women University Mardan (16 February, 2022)
- ❖ **Participation** in an Online Course (4-weeks) entitled; **Managing as a Coach** organized by UC Davis, University of California and sponsored by Coursera & HEC Pakistan (11 January to 15 February, 2022)
- ❖ **Poster Presentation** at Conference entitled; “**SRGP Meeting of Minds**” organized by National Academy for Higher Education, HEC Pakistan (10 February, 2022). Topic: Nitrogen Doped Carbon Materials from Nitrogen rich Precursors for Supercapacitor Application
- ❖ **Oral Speaker** at First International Conference on General Chemistry from Fundamentals to Applications, organized by Department of Chemistry, COMSATS University Islamabad, Islamabad Campus & Karakoram International University Gilgit Baltistan, Pakistan (10-12 February, 2022) Topic: A Green Approach for the Synthesis of Nitrogen-doped Carbon Materials from Waste Chicken Feathers for Supercapacitor Application
- ❖ **Chair organizing Committee** of Workshop entitled “Two-day Online Workshop on Fundamentals and Applications of NMR Spectroscopy” at Department of Chemistry, Women University Mardan (26-27 October, 2021)

- ❖ **Instructor** in a Workshop entitled “Two-day Online Workshop on Fundamentals and Applications of NMR Spectroscopy” at Department of Chemistry, Women University Mardan (26-27 October, 2021)
- ❖ **Invited Guest Speaker** at 17th International Symposium on Advanced Materials (ISAM-2021) Title: Template-free Synthesis of Hierarchical Porous Nitrogen-Doped Carbon Materials for Electrochemical Supercapacitors, organized by Pakistan Advanced Materials Forum (22-October, 2021)
- ❖ **Fundamentals of Project Management Course**, organized by Higher Education Commission of Pakistan & National Academy of Higher Education, Pakistan (27 March to 10 April, 2021)
- ❖ **National Faculty Development Program-2020**, Cohort-2, organized by Higher Education Commission of Pakistan & National Academy of Higher Education, Pakistan (8 June to 4 July, 2020)
- ❖ **Oral Speaker** at “Summer U.K. Northwest ECS Symposium”, University of Liverpool SIRE, 15th June, 2016.
- ❖ **Joint International Workshop on Nanotechnology: Policy Ethics & Science”** 25-27 March, 2013.
- ❖ 5-Day Workshop on **Working & Maintenance of NMR, IR & Cyclic Voltammetry”** 1-5 July, 2013.
- ❖ Conference on **Emerging Materials & Processes (CEMP)”** 22-24 Aug, 2013.
- ❖ One day Workshop on **Scientific approach to Teaching and Learning”** 29 Jan, 2014.
- ❖ Workshop on **Endnote X7”** 21 Aug, 2014.
- ❖ **3rd ASEAN-Pakistan Conference on Materials Science (APCOMS)”** 25-27 Nov, 2014.
- ❖ Two days Seminar on Synthesis and Characterization of Functional Materials, 26-27 May, 2015.
- ❖ **Basic Computer Course Certificate**, awarded by 23 Division Battle School No.2, Jhelum Cantonment on 7-July to 2-August, 2003.

SUPERVISION & VIVA EXAMINATION

- ❖ **Supervisor** for Ms. Safina Maaz, Tuba Shah, Wareesha Arshid, BS Chemistry, thesis titled “Synthesis of Graphene Oxide from Graphite by modified Hummers Method” on June 07, 2023 at Department of Chemistry, Women University Mardan.
- ❖ **External examiner** for Ms. Amna Sardar, Nida Siyar, BS Microbiology, thesis titled “Determining Antibacterial Potential of Commercial Soaps against Isolates collected from multiple surfaces” on June 09, 2023 at Department of Microbiology, Women University Mardan.
- ❖ **External examiner** for Ms. Nida Siyar, BS Microbiology thesis titled Isolation and Characterization of Bacteria from Milk Samples collected from Local Area of Mardan at Department of Microbiology, Women University Mardan.
- ❖ **External examiner** for Ms. Mahnoor, BS Microbiology, thesis titled “Antimicrobial Activity of Citrus Lemon Plant Extract against E. Coli, Staphylococcus aureus, Bacillus Subtilis, Pseudomonas aeruginosa” on June 09, 2023 at Department of Microbiology, Women University Mardan.
- ❖ **External Examiner** for Ms. Abeera Aziz, Regn No. 00000278450, MS Chemistry thesis titled “Efficient Electrochemical Sensing of Tamoxifen with Manganese Tetrachlorophenyl Porphyrin and Reduced Graphene Oxide Nanocomposite” on February 02, 2022 (Wednesday) at NUST - SNS H-12 Islamabad.

- ❖ **External Examiner** for Ms. Rafia Zafar, Regn No. 00000278205, MS Chemistry thesis titled “Sensing of Anticancer Drug Doxorubicin at Mn-TPP/RGO Modified Electrode” on February 23, 2022 at NUST - SNS H-12 Islamabad

COURSES TAUGHT

- ❖ Organic Chemistry-I
- ❖ Organic Chemistry-II
- ❖ Organic Chemistry-III
- ❖ Nuclear Chemistry
- ❖ Applied Chemistry
- ❖ Organic and Biochemistry
- ❖ Inorganic and Analytical Chemistry
- ❖ Environmental Chemistry
- ❖ Electrochemistry
- ❖ Polymer Science and Engineering
- ❖ Fermentation Technology
- ❖ Polymer Chemistry
- ❖ Photochemistry
- ❖ Inorganic Chemistry

MAJOR COURSES STUDIED

- ❖ Physical Chemistry
- ❖ Organic Chemistry
- ❖ Inorganic Chemistry
- ❖ Analytical Chemistry
- ❖ Basic Mathematics for Chemistry
- ❖ General Labs (Inorganic/ Organic/ Physical)
- ❖ Special Topics in Organic Chemistry
- ❖ Physico-Organic Chemistry
- ❖ Spectroscopy
- ❖ Pericyclic Reactions
- ❖ Advance Stereochemistry
- ❖ Biosynthesis of Natural Products
- ❖ Nuclear Magnetic Resonance Spectroscopy
- ❖ Reactive Intermediates
- ❖ Advance Mass Spectrometry
- ❖ Modern Trends in Organic Synthesis
- ❖ Advanced Stereochemistry
- ❖ Organic Polymer Chemistry
- ❖ Review paper/Position paper
- ❖ Chemistry of Organometallic compounds
- ❖ Physical Chemistry of Environment
- ❖ Seminar paper entitled: “Graphene Chemical functionalization”

PROFESSIONAL SKILLS

- ❖ NMR Spectroscopy
- ❖ Mass Spectrometry
- ❖ FTIR Spectroscopy
- ❖ Thermogravimetric Analysis
- ❖ Elemental Analysis
- ❖ X-ray Photoelectron Spectroscopy
- ❖ Raman Analysis
- ❖ X-ray Diffraction
- ❖ Brunauer Emmett Teller
- ❖ Beyer Joyner Halenda
- ❖ Scanning Electron Microscopy
- ❖ Transmission Electron Microscopy
- ❖ Energy Dispersive X-ray Spectroscopy
- ❖ Paper Chromatography
- ❖ Thin-layer & Column Chromatography
- ❖ Cyclic Voltammetry
- ❖ Galvanostatic Charge-discharge
- ❖ Impedance Spectroscopy

INSTRUMENTS USED

- ❖ UV/VIS-Spectrophotometer
- ❖ Raman spectrometer
- ❖ IR Spectrometer
- ❖ Refractometer

- ❖ Atomic Absorption Spectrometer
- ❖ Polarimeter
- ❖ Conductometer
- ❖ pH-meter
- ❖ Melting point apparatus
- ❖ Thermogravimetric analyzer
- ❖ Potentiostat/Galvanostat
- ❖ Impedance Analyzer
- ❖ Furnaces: High temperature vacuum box furnace, Tube furnace, Muffle furnace
- ❖ General lab equipments: Vacuum / heating ovens, measuring balance, infrared lamp, Sonicator, Ball mill

COMPUTER LITERACY

- ❖ Windows 8, XP
- ❖ Microsoft Word
- ❖ Microsoft Power Point
- ❖ Chemdraw
- ❖ Origin
- ❖ EC Lab
- ❖ Zoom meeting
- ❖ Skype
- ❖ Facebook/messenger
- ❖ Persuall
- ❖ Onedrive/google drive
- ❖ Coggle
- ❖ Menti.com / kahoot.com
- ❖ Microsoft teams

REFERENCES

- ❖ **Prof. Dr. Humaira M. Siddiqi**
Department of Chemistry, Quaid-i-Azam University, Islamabad, 45320, Pakistan.
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- ❖ **Prof. Dr. Shahid Hameed**
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- ❖ **Prof. Dr. Habib Nasir**
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