Curriculum Vitae

MUHAMMAD OMER (PhD)

Institute of Chemical Sciences (ICS),
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PERSONAL:

Father's name **: Akbar Zaman**
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Mailing Address : Institute of Chemical Sciences (ICS), Sector-C, Kanju Township Campus, University of Swat, Swat, KPK, PAKISTAN

EDUCATIONAL QUALIFICATION:

University/College/ School	Qualification	Awards and class of Honors	Year
Kyungpook National University, Daegu, South Korea	Ph.D.	Kyungpook National University	2014
University of Peshawar	M.Sc. (Chemistry)	Peshawar University	2004
Gomal University D.I.Khan	B.Sc.	Gomal University	2002
Govt. Degree College Lakki Marwat	F.Sc.	B.I.S.E. Bannu	1997
Municipal Inter College Wazir Bagh Peshawar	S.S.C.	B.I.S.E Peshawar	1995

- **Ph.D Research Topic:**

  Synthesis of polyelectrolytic amphiphilic liquid crystal block copolymers and their applications as biosensors.

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➢ Professional Experience:

- Analytical Chemist in Centralized Resource Laboratory (CRL), Physics department, University of Peshawar (UOP) from **18th May 2005** to **21st August 2008.**
- Assistant Professor (AP) (IPFP) in University of Swat (UoS) since **15th May 2014** till **31st March 2015**.
- Assistant Professor (AP) (TTS) in University of Swat (UoS) since **1st April 2015** till date.

➢ Conferences / Departmental contribution:

- Attended HEC organized workshop on capacity building in Islamabad in May, 2015 represented University of Swat.
- Made contribution in making of the syllabus for MSc Chemistry both Previous & Final semesters as well as M.Phil and PhD.

➢ Projects / Awards:

- Availed Higher Education commission (HEC) Start-Up Research Grant program (SRGP) project as Principal Investigator (PI) for University of Swat (UoS). **Conducting Polymers: PMMA/CNT/TiO_2 Composite, its Mechanical and electrical properties.**
- Availed Higher Education commission (HEC) Start-Up Research Grant program (SRGP) project as co-Principal Investigator (co-PI) for University of Swat (UoS). **Preparation and application of Nb2O5-X (X=Fe, Mn, Cu) catalyst for dyes degradation.**
- Availed Higher Education commission (HEC) Start-Up Research Grant program (SRGP) project as co-Principal Investigator (co-PI) for University of Swat (UoS). **Synthesis, characterization and biological activities of Porphyrin Schiff bases.**

- **Instrumental Skills:**

- AAS: Atomic Absorption spectrometer (PERKIN ELMER U.S.A. Model - AAnalyst 700)
- HPLC: High Performance Liquid Chromatograph (PERKIN ELMER U.S.A. Model: Series 200)
- GC: Gas Chromatograph (PERKIN ELMER U.S.A. Model: Clarus 200)
- DSC: Differential Scanning Calorimeter (Diamond Series PERKIN ELMER U.S.A.)
- TG/DTA: Thermogravimetric/Differential thermal Analyzer (Diamond Series PERKIN ELMER U.S.A.)
- Surface Area/Pore Size Analyzer (NOVA 2200e Series Quanta Chrome U.S.A.)
- Dynamic Mechanical Analyzer (Diamond Series PERKIN ELMER U.S.A.)
- UV-Vis Spectrophotometer
- Column Chromatography (CC)
- Potentiometer
- Conductometer
- pH meter
- Polarimeter
- Centrifuges of various types
- Vacuum Oven and High temperature Ovens
- Freeze Drier
- Distillation plants
- Sonicators etc.

PUBLICATIONS:

1. **Muhammad Omer**, Mashooq Khan, Young Kyoo Kim, Joon Hyung Lee, Inn-Kyu Kang, Soo-Young Park
   Biosensor utilizing a liquid crystal/water interface functionalized with poly(4-cyanobiphenyl-4-oxyundecylacrylate-b-((2-dimethyl amino)ethyl methacrylate))
   Colloids Surfaces B: Biointerfaces (2014), 121:400-408 (I.F. 3.997)

2. **Muhammad Omer**, Mohammad Tariqul Islam, Mashooq Khan, Young Kyoo Kim, Joon Hyung Lee, Inn-Kyu Kang and Soo-Young Park
   Liquid crystal-based biosensors using a strong polyelectrolyte-containing block copolymer, poly(4-cyanobiphenyl-4'-oxyundecylacrylate)-b-poly(sodiumstyrene sulfonate).
   Macromolecular Research (2014), 22(8), 888-894 (I.F. 1.767)

3. **Muhammad Omer** and Soo-Young Park
   Preparation of QP4VP-*b*-LCP liquid crystal block copolymer and its application as a biosensor.
   Analytical and Bioanalytical Chemistry (2014), 406(22), 5369-5378 (I.F. 3.307)

4. **Muhammad Omer**, Tahseen Kamal, Hyun-Hok Cho, Dong-Kook Kim, and Soo-Young Park.
   Preparation and structure of nylon 4/6 random-copolymer nanofibers.
   Macromolecular Research (2012), 20(8), 810-815 (I.F. 1.767)

5. **Muhammad Omer**; Haider, Sajjad; Park, Soo-Young.
   A novel route for the preparation of thermally sensitive core-shell magnetic nanoparticles.
   Polymer (2011), 52(1), 91-97 (I.F. 3.483)

6. Rahman, Ata ur; Iqbal, Mahmood; Rahman, Faiz ur; Fu, Dayan; Yaseen, Muhammad; Lv, Yongqin; **Muhammad Omer**; Garver, Michael; Yang, Li; Tan, Tianwei.
   Synthesis and characterization of reactive macroporous poly(glycidyl methacrylate-triallyl isocyanurate-ethylene glycol dimethacrylate) microspheres by suspension polymerization: Effect of synthesis variables on surface area and porosity.
   Journal of Applied Polymer Science (2012), 124(2), 915-926 (I.F. 1.90)

7. Imtiaz, Ahmad; Shakirullah, M.; Ishaq, M.; Khan, M. Arsala; Rehman, Habib Ur; **Muhammad Omer**; Ullah, Hameed.
   Porosity enhancement in some baked clay samples under hydrothermal treatments.
   Journal of the Chilean Chemical Society (2007), 52(2), 1126-1129 (I.F. 0.48)

8. Sajjad Haider, Tahseen Kamal, Sher Bahadar Khan, **Muhammad Omer**, Adnan Haider, Farman Ullah, and Abdullah M. Asiri
   Natural polymers supported copper nanoparticles for pollutants degradation.
   Applied Surface Science (2016), 387 (30), 1154-1161 (I.F. 4.439)

9. M. Sohail, M. Saleem Khan, Noor Saeed, M. Arif, M. Irfan, **Muhammad Omer.**

Synthesis, structural, thermal and dielectric properties of graphene oxide based barium titinate composite films: Possible materials for embedded capacitors.
Materials Discovery (2017), 10, 29–36 (I.F. 0.567)

10. Muhammad Alamzeb, **Muhammad Omer**, Mamoon-Ur-Rashid, Muslim Raza, Saqib Ali, Behramand Khan, Asad Ullah.
NMR, novel pharmacological and in silico docking studies of Oxyacanthine and Tetrandrine - Bisbenzylisoquinoline alkaloids isolated from *Berberis glaucocarpa* roots.
Journal of Analytical Methods in Chemistry (2018) (https://doi.org/10.1155/2018/7692913) (I.F. 1.27)

11. M. Sohail, M. Saleem Khan, **Muhammad Omer**, Ihsan Ullah Marwat, Noor Saeed Khattak, Sana Ullah Khan, Zakir Ullah, Sami Ur Rahman.

Synthesis, morphology, structural and rheological studies of $Fe_{0.01}Al_{0.5}La_{0.01}Zn_{0.98O}$ based polyaniline composite material.
Journal of the Australian Ceramic Society (2018) (doi:10.1007/s41779-018-0207-2) (I.F. 0.587)

12. Shabir Ahmad, Sidra Munir, Nadia Zeb, Asad Ullah, Behramand Khan, Javed Ali, Muhammad Bilal, **Muhammad Omer**, Muhammad Alamzeb, Syed Muhammad Salman, Saqib Ali
Green nanotechnology: a review on green synthesis of silver nanoparticles — an ecofriendly approach.
International Journal of Nanomedicine (2019), 14, 5087-5107 (I.F. 4.471)