

SKILLS

A period of exertion has turned me into active learner, listener and responsive thinker. My experience as HoD has not only matured my managerial and organizational skills, but also my oral and written communication skills. Through research supervisory duties and project collaborations, I have learned being a creative team builder and player, with sound analytical skills and subject knowledge. My professional growth has taught me an inevitable adaptability lesson to work with or without any external help, even under pressure. While working on Material chemistry for the last few years, I have propagated grip on structure-activity evaluation of materials, material processing techniques, material characterization through XPS, SEM, TGA, DSC, FTIR, DLS, EDX, Raman, Elemental Analysis.



INTRUMENTATION

1. Developed Instrumental Lab in University of Education Vehari Pakistan
2. Hands on experience with:
 - a. TGA (SKZ1060) for thermal stability
 - b. DSC (SKZ1060) for degree of cure (heat of reaction)
 - c. FTIR/ATR (IRSiport Schimadzu) for functional group analysis
 - d. SEM (TESCAN) for imaging of nano sized objects.
3. Capable to interpret and use the data scientifically for XPS, SEM, TGA, DSC, FTIR, DLS, EDX, Raman etc.

EDUCATION

- Ph.D. 2014. **Material Chemistry**. Politecnico di Torino, Italy.
MS 2010. **Material Chemistry**. Politecnico di Torino, Italy.
M.S.(Coursework) 2009. **Organic Chemistry**. ICCBS, University of Karachi.
M.Sc. 2004. **Organic Chemistry**. Uni. of Agriculture Faisalabad.

EXPERIENCE

- Associate Professor (BPS-20), University of Education Lahore. Mar. 23, 2021 – Continued
- Assistant Professor (BPS-19), University of Education Lahore. Sep. 01, 2015 – Mar. 22, 2021
- Assistant Professor (TTS), COMSATS IIT Abbottabad Apr. 03, 2014 – Aug. 31, 2015
- Chemistry Teacher, Politecnico di Torino, Italy. Jan. 01, 2010 – Dec. 31, 2013
- Junior Research Fellow, ICCBS, Karachi University, Karachi. Aug. 01, 2007 – Aug. 31, 2009
- Technical Chemist, Berger Robbialac Paints, Karachi. June 06, 2005 – Jul. 21, 2007
- Researcher, Chemistry Department, Uni. of Agriculture Faisalabad. Aug. 02, 2004 – June 03, 2005

PUBLICATIONS

- **M. Atif**, E. Cellasco, M. Giorelli, A. Tagliaferro and R. Bongiovanni. Modification and characterization of carbon black with mercaptopropyltrimethoxysilane. *Applied Surface Science* (2013) 286: 142–148.
- **M. Atif**, J. Yang, H. Yang, N. Jun and R. Bongiovanni. Effect of novel UV-curing approach on thermo-mechanical properties of colored epoxy composites in oversized dimensions. *Journal of Composite Materials* (2016) 50/22: 3147–3156.
- **M. Atif**, M. Ramzan A. Karim, I. Ali and R. Bongiovanni. Photochemical thiolation of carbon particles with Mercaptopropyltrimethoxysilane. *Composite Interfaces* (2019) 27: 1–14.
- **M. Atif**, S. A. Ahmad, A. Ghani, A. Mahmood, R. Bongiovanni. Experimental exploration of SMART photochemical approach for surface modification of CB. *Applied Surface Science* (2020) 145281.
- **M. Atif**, M.R. Abdul Karim, Z. Khaliq and R. Bongiovanni. Facile Oxidation Approach to Amend Surface Chemistry of Carbon Particles for Augmented Dispersion in Epoxy Matrix. *Russian Journal of Applied Chemistry* (2020) 93/2: 305-312.
- **M. Atif**, A R Kashif, Z Khaliq, A Mahmood, M A Hussain, R Bongiovanni. Electrochemical evaluation of textile industry waste derived carbon particles for UV-cured epoxy composites. *Diamond & Related Materials* 105 (2020) 107804.
- **M. Atif**, Q. Farid, S. A. Ahmad, R. A. Karim, A. Hussain, F. Rabbani and R. Bongiovanni. Electrochemical evaluation of human hair derived carbon particles. *ECS Journal of Solid State Science and Technology* (2020) 9/5: 051003.
- **M. Atif**, M. Naeem, R. A. Karim, F. Ameen, M. W. Mumtaaz. Surface modification and characterization of waste derived carbon particles to reinforce photo-cured shape memory composites. *RSC Advances*, 2022, 12, 5085-5093
- **M. Atif**, M. A. Hussain, A. Rani, R. Bongiovanni. Controlled cationic curing of epoxy composites with photochemically modified silanol encapsulated carbon black. *Journal of Applied Polymer Science* (2022) 139:27, e52241
- R. Tang, **M. Atif**, J. Yang and N. Jun. Preparation of antifog and antibacterial coatings by photopolymerization. *Polymers for Advanced Technologies* (2014) 25: 651-56.
- Ahmed, N., **Atif, M.***, Ahmed, N., Iftikhar, F., Nauman S., and B. Niaz. Polyurethane Polystyrene based smart interpenetrating network with quick shape recovery through thermal actuation. *Polymers and Polymer Composites* (2022) 30, 09673911221076847. <https://doi.org/10.1177/09673911221076847>
- Ali, B., **Atif, M.**, Perviaz, M., Irshad, A., Abdullah, M., and M. A. Mobeen. Catalyst Free Synthesis of Low Thermal Actuated Shape Memory Polyurethanes with Modified BioBased Plasticizers. *RSC Advances* (2023) 13, 506 – 515
- Irshad, A., **Atif, M.**, Ghani, A. et al. Experimental evaluation of cobalt adsorption capacity of walnut shell by organic acid activation. *Sci Rep* 13, 7356(2023) <https://doi.org/10.1038/s41598-023-33902-9>
- J. Wang, J. Yang, **M. Atif**, R. Bongiovanni, G. Li, Z. Xue and X. Yang. One-component photoinitiator based on benzophenone and sesamol. *Polymers for Advanced Technologies* (2018) 29 : 2264-2272.
- Ali, I., Mu, Y., **Atif, M.**, Hussain, H., Li, J., Li, D. & Wang, X. (2021). Separation and anti-inflammatory evaluation of phytochemical constituents from *Pleurospermum candollei* (Apiaceae) by

- high-speed counter-current chromatography with continuous sample load. *Journal of Separation Science* (2021) 44/13:2663-73.
- Hussain, M. A., Choi, E. J., Maqbool, A., **Atif, M.**, Zeb, H., Yeo, J. & Kim, J. W. (2021). An efficient hydration of nitriles with ruthenium-supported heterogeneous catalyst in water under moderate conditions. *Journal of Industrial and Engineering Chemistry* (2021) 99:187-195
 - Ali, L., Qureshi, T., Hussain, M. A., **Atif, M.**, Sohaib, H. M., & Siddiqi, M. H. Evaluation of kinetic behaviour of refused derived fuel samples by using thermogravimetric analysis. *Thermal Science* (2022), 198-198.
 - M. A. Hussain, M. Irshad, E. Ul-Haq, S. Park, **M. Atif**, A. S. Hakeem, B. G. Choi and J. W. Kim. Porous Aluminum oxide as an efficient support for Ruthenium-catalyzed aerobic oxidation of alcohols and amines. *Ind. Eng. Chem. Res.* (2019) 58: 23025-23031.
 - R. A. Karim, E. U. Haq, A. Hussain, khurram, N. Mehrvi, **M. Atif**. Experimental evaluation of sustainable geo-polymer mortars developed from loam natural soil. *Journal of Asian Architecture and Building Engineering* (2020) 19/6: 637-646.
 - A. Mumtaz, A. Maalik, A. Zaidi, W. Khan, S. Azhar, N. Fatima, A. Saeed, **M. Atif**. Synthesis, characterization, antimicrobial and phytotoxic screening of 1-Aroyl-3,5-diarylpyrazoline derivatives. *Acta Polonica Pharmaceutica* (2015) 72/5 : 937-941.
 - N. Engel, I. Ali, A. Adamus, M. Frank, A. Dad, S. Ali, B. Nebe, **M. Atif**, M. Ismail, P. Langer and V. U. Ahmad. Antitumor evaluation of two selected Pakistani plant extracts on human bone and breast cancer cell lines. *BMC Complementary and Alternative Medicine* (2016) 16:244 DOI:10.1186/s12906-016-1215-9.
 - A. Dad, I. Ali, N. Engel, **M. Atif**, H. Hussain, V. U. Ahmad, P. Langer, A. Al-Harrasi and I. R. Green. The phytochemical investigation and biological activities of *Berberis Orthobotrys*. *International Journal of Phytomedicine* 9 (2017) 213-218.
 - **M. Atif**, R. Bongiovanni and J. Yang. Cationically UV-cured epoxy composites. *Polymer Reviews* (2015) 55 : 90-106.
 - **M. Atif**, I. Afzaal, H. Naseer, M. Abrar and R. Bongiovanni. Surface Modification of Carbon Nanotubes: A Tool to Control Electrochemical Performance. *ECS Journal of Solid State Science and Technology* (2020) 9/4: 041009.
 - **M. Atif**, Ameen, F., Mahmood, K., & Yousuf, U. F. Qualitative and quantitative impact of filler on thermomechanical properties of epoxy composites. *Polymers for Advanced Technologies* (2021) 32(8): 2813-28
 - **M. Atif**, Haider, H. Z., Bongiovanni, R., Fayyaz, M., Razzaq, T., Gul, S. Physisorption and Chemisorption Trends in Surface Modification of Carbon Black. *Surfaces and Interfaces* (2022): 102080
 - Ali, B., Irshad, A., & **Atif, M.** Biobased photocurable polyurethane composites. *Polymers for Advanced Technologies* (2023) 34(2), 452-473.
 - Marriam, M., Irshad, A., Umer, I., Asghar, M. A., and **M. Atif**. Vegetable Oils as Bio-Based Precursors for Epoxies. *Sustainable Chemistry and Pharmacy* (2022) 31: 100935
 - Umer Zia, Hira Irum, Zeshan Haider, Faiza Ameen, Maria Abrar, **Muhammad Atif***. Biowaste as a Source of Conductive Carbon. *ECS Journal of Solid State Science and Technology* (2022) 11(2), 021001

- Aslam, A. A., Irshad, A., Nazir, M. S., & Atif, M. (2023). Covalent organic frameworks as adsorbents for organic pollutants. *Journal of Cleaner Production*, 136737.
- A. A. Aslam, J. Akram, R. A. Mehmood, A. Mubarak, A. Khatoon, U. Akbar, S. A. Ahmad, M. Atif. Boron based bioactive glasses: Properties, processing, characterization and applications. *Ceramics International* (2023), <https://doi.org/10.1016/j.ceramint.2023.03.164>

BOOK CHAPTER

- R. Bongiovanni, M. Atif and M. Sangermano. Polymer Nanocomposites with UV Cured Epoxies; in Thermoset Nanocomposites. Vikas Mittal; Wiley-VCH, 2013.

RESEARCH PROJECTS

- **Completed:**
- “Surface modification and characterization of carbon black with Mercaptopropyltrimethoxysilane; utilization of modified carbon black in UV-cured epoxy composites”. PhD Research. Sponsored by HEC Pakistan.
- “Synthesis and Characterization of bi-functional Acrylate monomer”. Sponsored by Italian research ministry (MIUR).

SYMPOSIA

- Symposium on Pure and Applied Chemistry, UE *Vehari Campus* (Apr. 17th 2019) **Chief Organizer**
- Second European Symposium on Photopolymer Sci., Torino, Italy (Sep. 4-7, 2012).
- 11th International Symposium on Natural Products Chemistry, Kharachi, Pakistan. (29th Oct.-1st Nov. 2008).

SCHOOLS

- EPF 5th Summer School (Gargnano, Italy); Fundamentals and Developments in Polymer Processing Science and Technology
- Lecture Series on Modern Mass Spectroscopy in ICCBS, Karachi University, by Prof. Dr. David Smith (University of Nebraska, USA).

RESEARCH VISITS

- Beijing University of Chemical Technology (BUCT) Beijing, China; Italian Research ministry sponsored Research Visit (Sep.-Nov. 2012).

TRAININGS

- HEC - BC Capacity Development Program (for Reviewers) 21-24th Feb, 2023
- Attended Faculty Development Workshop-15 at COMSATS IIT Abbottabad (1 week).
- Organized Faculty Development Workshop-16 at COMSATS IIT Abbottabad (1 week).
- Attended Faculty Professional Development Program-28 at HEC Islamabad (2 months)

- EL-Teach (scored 300/300)
- IELTS (7.5 bands).

STUDENTS SUPERVISED

- MS
 - Abd Ur Rehman Kashif (MSF1700014; UE Lahore) Session 2017-19. Preparation and Characterization of UV Cured Conductive Epoxy Composites
 - Faiza Ameen (MPH-C-18-23; BZU Multan) Session 2018-2020. Effect of Surface Chemistry and Concentration of Carbon Fillers in Thermo-Mechanical Properties of Photo-cured Epoxy Composites.
 - Gull Rida (MPH-C-18-64; BZU Multan) Session 2018-2020. Comparative Kinetics Study of the Effect of Carbon Fillers Surface Chemistry on Epoxy Photo-Polymerization.
 - Hira Naseer (MPH-C-18-37; BZU Multan) Session 2018-2020. Use of dopamine coated carbon particles in epoxy composites for super capacitor applications.
 - Umer Farhan Yousuf (19-UE-08617) Session 2019-21. Preparation and characterization of Epoxy from Waste Industrial Oil using Pd activated charcoal as Catalyst.
 - Hafiz Zeeshan Haider (19-UO-1261) Session 2019-21. Effect of Recycled Polystyrene Bottles on Thermo-Mechanical Properties of Epoxy Composites
 - Muzamil Munawar (19-UO-1275) Session 2019-21. Utilization of Waste Plastic bags to Reinforce Shape Memory Epoxy Composites.
- BS
 - Hira Naseer (140106511-19; UE Vehari) Session 2014-2018. Use of Surface Modified Carbon fillers in Electrically Conductive Applications.
 - Faiza Ameen (140106511-13; UE Vehari) Session 2014-2018. Use of Surface modified Carbon fillers in Thermally Conductive Applications.
 - Imran Afzaal (140106511-79; UE Vehari) Session 2014-2018. Preparation and characterization of epoxy composites for conductive applications.
 - Syeda Tooba Fatima (140106511-59; UE Vehari) Session 2014-2018. Preparation of activated carbon from textile industrial waste.
 - Umaima Rasheed (140106511-62; UE Vehari) Session 2014-2018. Synthesis and Characterization of Bio-based Epoxy Resins.
 - Hafiz M. Qamar Farid (150106511-59; UE Vehari) Session 2015-2019. Synthesis and characterization of carbon Particle from Human Hair
 - Nida Khalid (150106511-31; UE Vehari) Session 2015-2019. Conductive Carbon particles synthesis from raw cotton
 - Maria Abrar (150106511-23; UE Vehari) Session 2015-2019. Synthesis and characterization of Epoxide from Alkenes
 - Hamna Afzal (150106511-14; UE Vehari) Session 2015-2019. Facile Approach of Graphene Synthesis.
 - Tayiba Razzaque (BSF-1603416; UE Vehari) Session 2016-2020. Study for the Mechanistic Approach for Cationic Association of Epoxy with Surface Functionalization of Carbon fillers

- M. Naeem (BSF-1603449; UE Vehari) Session 2016-2020. Synthesis and Characterization of Shape-memory Carbon-Epoxy composites
- Sara Gul (BSF-1603643; UE Vehari) Session 2016-2020. Facile Photochemical Approach for surface amination of carbon filler.
- Maria Fayyaz (BSF-1603469; UE Vehari) Session 2016-2020. Synthesis and characterization of Bio-Based Epoxies from Castor oil and Linsed oil.
- Sofia Bashir (BSF-1603483; UE Vehari) Session 2016-2020. Strategies for the Halogenation of Carbon Black.
- M. Shahbaz (BSF-1603686; UE Vehari) Session 2016-2020. Kinetic modeling for Smart UV curing Approach for epoxy composites.

SOCIETAL COMPETENCIES

- Incharge Internal Examination University of Education (Vehari Campus, 2021-till date)
- Incharge Student Counseling Forum, University of Education (Vehari Campus, 2016-till date)
- Member Discipline Committee, University of Education Lahore (Vehari Campus, 2016-till date)
- Departmental Coordinator, University of Education Lahore (Vehari Campus, 2015-2020)
- Incharge Sports, University of Education Lahore (Vehari Campus, 2016-2019)
- Incharge Student Affairs, University of Education Lahore (Vehari Campus, 2016-2018)
- Advisor Young Researcher Society, University of Education Lahore (Vehari Campus)
- Has worked as
 - Departmental ISO Coordinator, CIIT Abbottabad
 - Departmental Seminar Coordinator, CIIT Abbottabad
- Member “Innovator Club”, IRP, Pakistan.
- Member of Italian Association of Macromolecules, Italy.
- Pioneer member of CHEM. HELP DESK for international students in Polito, Italy

REFERENCES

- Prof. Roberta Bongiovanni, Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy. email: roberta.bongiovanni@polito.it
- Prof. Marco Sangermano, Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy. email: marco.sangermano@polito.it
- Prof. Jun Nie (MD), College of material science and engineering, Beijing University of Chemical Technology, Beijing, China, email: niejun@mail.buct.edu.cn