### DR. MOHAMMAD SOHAIL



Designation:	Assistant Professor
E-Mail Address:	E-mail: msohail2000@uswat.com
E-Man Address.	msohail2000@gmail.com
	Cell No: 0341-1506270
<b>Education:</b>	1. PhD (Physical Chemistry) (2016) University of
	Peshawar
	2. MPhil (Physical Chemistry) (2013) University
	of Peshawar
	3. MSc (Chemistry) (2009) Hazara University
	Mansehra
	4. B.Sc (Chemistry/Biology) (2007) Hazara
	University Mansehra
	5. HSSC (Pre-Medical) (2000) BISE Swat
	6. SSC (Science Group) (1997) BISE Peshawar
	7. B.Ed (General) (2012) AIOU Islamabad
	8. M.Ed (Science) (2018) AIOU Islamabad 1. University of Swat
Experience	DOA: 01-06-2017- Till Date
	Status: Assistant Professor (TTS)
	2. University of Swat
	2017-Till Date
	Status: Member Curriculum Developing
	Committee
	3. Shaheed BB University Sheringal Dir (U)
	From 14-04-2014 to 31-05-2017
	Status: Lecturer
	4. Govt. Degree College Oghi Mansehra
	From August 2007 to July 2008
	Status: lecturer
Honors and Awards	1. Merit Award Scholarship for MPhil studies
	2. Merit Award Scholarship for PhD studies
	3. HEC Approved PhD Supervisor
	Dr. Mohammad Sohail has been selected as HEC
	Approved Supervisor for a period of three (3)

	years (From April 2018- April 2021).
Memberships	<ol> <li>Member of the International Union of Pure and Applied Chemistry (IUPAC)</li> <li>Member admissions committee, ICS, UoS</li> <li>Member curriculum development of ICS, UoS</li> <li>MSc Semester Assistant Coordinator</li> </ol>
<b>Brief Statement of Research</b>	Conducting Polymers, Composites, Graphene based
Interest	Smart Materials, Nanomaterials, Biosensors, Electronic matreials
Publications	1. M. Sohail, Sana Ullah, Shafiq ur Rahman, Bilal Ahmaed, Adnan, Ihsan Ullah. Synthesis and Characterization of Mg based TiO2/Al2O3 Composite materials. Accepted in Metal and Materials International Journal (Springer).
	2. Sana Ullah, <b>M. Sohail</b> , Dionysios D. Degradation of highly chlorinated pesticide, lindane, in water using UV/persulfate: kinetics and mechanism, toxicity evaluation, and synergism by H <sub>2</sub> O <sub>2</sub> . <i>J. Hazardous Materials</i> . <b>Accepted</b> (Ms. Ref. No.: HAZMAT-D-20-00035R2)
	3. Sana Ullah, Cahngseok Han, Murtaza Sayed, Mohammad Sohail, Safeer Jan, Sabiha Sultana, Hasan M. Khan, Dionysios D. Exhaustive Photocatalytic Lindane Degradation by Combined Simulated Solar Light-Activated Nanocrystalline TiO <sub>2</sub> and Inorganic Oxidants, <i>Catalysts</i> , 2019, 9(5) 425.
	4. Noor Saeed, Arbab Safeer, Luqman Ali, Latafat Ara, M. Farooq, M. Sohail, Safaa I. Thermal and Rheological study of nanocomposites, reinforced with Bi-phase ceramic nanoparticles. Z. Phys. Chem. 2018; (DE GRUYTER).
	5. <b>M. Sohail,</b> M. Saleem Khan, M. Omer, Ihsan Ullah, Noor Saeed, Sana Ullah, Zakir Ullah, Sami-ur Rahman, Synthesis, morphology, structural and rheological studies of Fe <sub>0.01</sub> Al <sub>0.5</sub> La <sub>.0.01</sub> Zn <sub>0.98</sub> O based polyaniline composite materials. <u>Australian Ceramic Society Journal</u> Accepted. (April 2018) (In

Press)

- 6. **M. Sohail,** M. Saleem, Sana Ullah, Noor Saeed, Ayesha Afridi, Majid Khan, M. Arif, Modified and Improved Hummer's Synthesis for Capacitors Application, *Modern Electronic Materials*, 110-116, 2017.
- 7. M. Saleem Khan, **Mohammad Sohial**, Noor Saeed Khattak, Murtaza Sayed, Industrial Ceramic Waste in Pakistan, Valuable materials for Possible applications, *Journal of Cleaner Production*, 139, 1520-1528, **2016**.
- 8. M. Saleem Khan, **Mohammad Sohial**, Noor Saeed Khattak, Ayesha Afridi, Synthesis and Characterization of Three-Phase Polymer-Graphene Oxide-Ceramic Composites, *Journal of the Chemical Society of Pakistan*, 38 (02) 234-240, **2016**.
- 9. M. Saleem Khan, Inam Ullah, **Mohammad Sohial**, Noor Saeed Khattak, Conversion of Mixed Low-Density Polyethylene Wastes into Liquid Fuel by Novel CaO/SiO<sub>2</sub> Catalyst, *Journal of Polymer Environment*, 24 (3) 255-263, 2016.
- 10. M. Saleem Khan, Noor Saeed, M. Sohail, Synthesis and Characterization of Composites of Ceramic Nano-particles with Nonconducting Polymers for Dielectric Materials Production, *Journal of Materials Science:* Materials in Electronics, Accepted, ID (#JMSE-D-16-01769R2),
- 11. Salma Bilal, **Mohammad Sohail**, Anwar ul Haq Ali Shah, Synthesis and Characterization of Soluble and Thermally Stable Polypyrrole-DBSA Salts, *Journal of The Chemical Society of Pakistan*, 36 (06) 976-982, **2014**.
- 12. M. Ilyas, Aziz Ahmad, Zahid Ali. M. Sohail, M. Arif, Zia Ullah, Investigation of the Acitivity of Sawdust as Bisorbent towards Cr(VI) remaoval from Waste Water, Kinetic and Thermodynamic Studies, *International*

Research Journal of Environment Sciences, 3 (4) 5-12, 2014.

- 13. **M. Sohail,** M. Saleem Khan, Noor Saeed, M. Arif, M. Irfan, M. Omer. Synthesis, structural, thermal and dielectric properties of graphene oxide based barium titinate composite films: Possible materials for embedded capacitors. Materials Discovery 10(2017) 29-36.
- Book Chapter
   Advances in Water Purification Techniques.
   Chapter # 6
  - 1. Patent: Submitted to IPO Karachi Pakistan

## Research Grants and

#### Contracts

#### **Projects Availed**

- 1. Beneficiary of SRGP (21-1705/SRGP/R&D/HEC/2017) HEC grant, PKR. 0.5 million under the title "Development of Embedded Capacitors based on Waste Ceramics/Polyaniline (PANI) macro composites for Batteries and Microwave Devices".
- 2. Beneficiary of A joint project entitles to "Developing Environmental Friendly, Mg-Matrix Based Composite Technology for Present and Future Generations" worth Rs: 1 million awarded by Pakistan Science Foundation (PSF).
- 3. LCF 2020 HEC Project shortlisted (As Co-PI)

#### **HEC Travel grant availed**

4. Beneficiary of Travel grant HEC award letter NO: (283.17/TG/R&D/HEC/2017/24758) for presenting a research paper entitled "Novel Composites based on Waste Ceramics and

- Conducting Polymers: An Approach from Worse to Better" at Advanced Materials World Congress-2018 in Singapore (04-08 February 2018).
- 5. Beneficiary of Travel Grant HEC awarded letterNO: 308.40/TG/R&D/HEC/2018/29936) for presenting research paper entitled "Industrial Ceramic Waste in Pakistan: Renewable natural Capital for pollution Control, Energy, and Green Environment" at IAPE'19 at Oxford University UK (March 13-14, 2019)

#### **Project Submitted**

- 6. A project entitled "High Efficiency Laboratory Scale Defensive Protocols against COVID-19 Infection" has been submitted to HEC of Pakistan (underview).
- 7. A project entitled "Novel Composites Based on Waste Ceramics and Conducting Polymer: "An Approach from Worse to Better" worth Rs: 0.5 million, has been submitted to Directorate of Science and Technology (DOST), Govt. Khyber Pakhtunkhwa. (Under review).
- 8. A project entitled "Quantification and Treatment of River Swat Polluted Water using Green Adsorbent" has been submitted to National Cleaner Production Center (NCPC) Islamabad.
- 9. A project entitled "Pollution Control inn River Swat" has been submitted to **Direct aid program**, **Australian High Commission Islamabad**.

# Selected Professional Presentations

- 1. Oral Presentation on Energy harvested materials at Oxford University UK, on 13-14 March, 2019.
- Oral presentation entitled "Novel composites based on Waste ceramic and conducting polymers: An approach from worse to better" M. Sohail, M. Saleem, M. Omer, Noor Saeed, in the 1st International Conference on Emerging Trends in Material Sciences at Islamia College University Peshawar, (27th February to 1st March 2018).
- 3. Oral presentation entitled "Novel composites

- based on Waste ceramic and conducting polymers: An approach from worse to better" M. Sohail, M.S.Khan, N. Saeed in the Advanced Materials World Congress-2018, Singapore, (Feb 04-08. 2018).
- 4. Oral presentation entitled "Dielectric and electrical properties of Graphene oxide based BaTiO3 films for electro-responsive technological Applications" M. Sohail, M.S.Khan, N. Saeed, M. Khan, M. Arif, S.U.Rahman in ISAM-2017 (October 15-20 2017) at NCP, QAU, Islamabad, Pakistan.
- 5. Oral presentation entitled " *Mohammad Sohail, M. Saleem Khan*, Assesment of different ceramic wastes and their potential for possible applications" in SPI-2016 (19-20 October) at UET Peshawar Pakistan
- 6. Presented an oral presentation entitled "Mohamma Sohail, М. Saleem Khan, Structural, Synthesis, **Thermal** and Dielectric Properties of Graphene Oxide based Barium Titinate Composite Films" in 13<sup>th</sup> International and 25<sup>th</sup> National Chemistry Conference 2015 IslamiaUniversity at Bahawalpur, Punjab, Pakistan.
- 7. Presented an oral presentation entitled "M.Sohail, M.Saleem Khan, Synthesis and Characterization of Triphase Polymer-Graphene Oxide-Ceramic Composites" at ISS-2015, National Center for Physics QAU, Islamabad, Pakistan.
- 8. Presented oral presentation entitled "Mohamma Sohail, М. Saleem Khan, Synthesis and **Properties** of  $Fe_{0.01}La_{0.01}Al_{0.5}Zn_{0.98}O$ (FLAZPs) based **PANI** Nanocomposites" in 12<sup>th</sup> International and 24<sup>th</sup> National Chemistry Conference 2014 at University of Punjab, Pakistan.
- 9. Presented an oral presentation entitled "Mohammad Sohail, Salma Bilal, Synthesis and characterization of Polypyrrole-DBSA salt composites" in 2<sup>nd</sup> National Conference on Material Science at University of Peshawar, Peshawar, Pakistan (2011).
- **10.** Co-organized a conference entitled Advence

- Separation Tehniques in Analytical Chemistry. 2019, University of Swat.
- **11.** Participated as Oral presenter at 44<sup>th</sup> International Nathiagali Summer College 2019. NCP, QAU, Islamabad
- **12.** Participated in one day seminar on Writing a winning grant proposal and scholarship application, University of Swat, 2018.
- **13. Organized and participated** a one day seminar on O-GlcNAcylation in cervical cancer Metastasis in Cell Death 2019, University of Swat.
- **14. Participated** Ist National Coneference on Advances in Physics 2017, University of Malakand.
- **15. Attended** four day International Training on line learning and Teaching, 2018, NUML Islamabad.
- **16. Poster presentation** in Chemical trends at LUMS Lahore, 2014.
- **17. Participated in Two days** workshop on 1D and 2D NMR at HEJ University of Karachi 2012.