

CURRICULUM VITÆ

PROF. DR. SULTAN ALAM



DEPARTMENT OF CHEMISTRY

UNIVERSITY OF MALAKAND

OBJECTIVES

1. To consult with the staff and student communities for developing **University Strategy** regarding the vision, mission, values and goals for creating ways to **educational innovation and quality** with special reference to international level.
2. To support and nurture the **careers and wellbeing of University staff** by delivering career progression, reward and development to maximize their capabilities; stimulating outstanding research, innovation, impact and educational delivery; and championing values and behaviours that support the wellbeing of staff and students.
3. To embed **equality, diversity and inclusion** across all aspects of the University; creating a respectful and considerate environment where staff and students feel comfortable and supported to be their very best; and fostering a culture of open, constructive and civil debate where staff and students visibly contribute to the values of the University.
4. To create a fit for purpose **organisational design** that represents best practice for our governance and decision-making; using distributed leadership to ensure that decisions are made at the right level; utilising the diversity and expertise of staff at all levels to inform policies and practice; and to enhance the effectiveness, efficiency and professional development.
5. To establish advanced instrumental laboratories with top class software for the data interpretation of the research students and to link the research with the high rank journals of high impact factor and citation to rank the university in the top world ranked universities.
6. To improve and extend the University's assurance, compliance and culture on **health and safety** to ensure our environment is safe, secure and supports the physical and mental health and wellbeing of all members of the community.

A. PERSONAL DETAILS

NAME: DR. SULTAN ALAM

CNIC No: 15602-0246772-1

FATHER'S NAME: SYED SULTAN MAHMOOD KAKAKHEL

Father CNIC No: 15602-0246673-7

Cell No: 0345-9867145

E-mails: sultangsh@uom.edu.pk
dr.sultanalam@yahoo.com

Date of Birth: 20/11/70

Age: 50 Year, 7 Months and 25 days

Domicile: District Swat

Province : Khyber Pakhtunkhwa

Place of Birth: Swat

Gender: Male

Blood Group: B-Positive

Religion: Islam

Citizenship: Pakistani

Marital Status: Married

Occupation: Govt Servant

Tracking No. 12031121739

Permanent Address: Mohalla Kakakhel, Village Dedawar, Shamoza, Barikot Swat KP.

Official Address: Department of Chemistry, University of Malakand, Chakdara, Dir Lower KP.

B. PRESENT POSITION

Name of the post: **Professor (BPS-21)**

Date of appointment: **28th August 2008**

Name & address of the employer: **University of Malakand Chakdara, Dir Lower**

Contact No. address of employer: **0945-9250555 (Fax), 0945-9250566 (Call)**

Total Experience: 16 years, 8 months and 17 days

Total Impact Factor: 111

HEC Approved Supervisor: Yes

Website: www.uom.edu.pk

Google Scholar: <https://scholar.google.com/citations?user=arwzsLkAAAAJ&hl=en>

C. EDUCATIONAL QUALIFICATIONS

Certificate/Degree	Institution	Marks	%age	Grade/Class
SSC	BISE Peshawar	589/850	69.3	B/1 st Class
HSSC	FBISE Islamabad	672/1100	61.1	B/1 st Class
B.Sc	University of Peshawar	335/550	61.0	B/1 st Class
M.Sc	University of Peshawar	827/1200	69.0	B/1 st Class
B.Ed	University of Peshawar	672/1000	67.2	B/1 st Class
M.Phil	University of Peshawar	CGPA=3.5	3.50	B/1 st Class
Ph.D	University of Malakand	CGPA=3.74	3.74	B/1 st Class

D. SUBJECT: CHEMISTRY

Ph. D = “Characterization and Regeneration of Carbonaceous Substrate Produced from Biotic Precursors and its Use for the wastewater Treatment”

M. Phil = “Adsorption Studies of Aliphatic Organic Acid from Aqueous Solutions on Commercial Granular Activated Charcoal”

M.Sc: “Monitoring of Industrial Effluents”

E. RESEARCH INTERESTS

➤ SURFACE CHEMISTRY

- Conversion of Lowcost precursors into activated carbon like agricultural waste material, fast growing wood and animal bones.
- Regeneration of industrial spent carbon.
- Preparation of hydrogels and bimetallic nanoparticles for the removal of dyes.
- Surface chemistry at solid-liquid interface.
- Removal of organic and in-organic pollutants from aqueous solutions by active adsorbents like activated carbon, clays, soil, hydrogels and bimetallic nanoparticles.

➤ ENVIRONMENTAL CHEMISTRY

- Monitoring of drinking water quality/industrial effluents and its impacts on human life.
- Exploration of soil contaminants.

➤ FOOD CHEMISTRY

- Quantification of nutrients in the indigenous medicinal plants and its impact on the functional regulation of human body activities.

- Determination of metals in the commercially available edible herbs and its therapeutic value.
- Exploration of nutritional status of plants habitat.

F. CHEMISTRY SUBJECT TAUGHT

- Surface Nature and Characterization of Porous Materials
- Surface Chemistry
- Advanced Chemical Kinetics
- Microporous and Mesoporous Material
- Photochemistry
- Polymer Chemistry
- Solution Chemistry
- Separation Techniques
- Environmental Chemical Analysis
- Physical Structure of Porous Material
- Advanced Applied Chemistry
- Special Topics in Applied Chemistry
- Industrial Process Chemistry
- Adsorption Technology
- Atmospheric Chemistry and Pollution
- Chemical and Environmental Health
- Chemical Toxicology
- Nanomaterials and their Applications
- Recent Topics in Physical Chemistry
- Composite Material

G. AWARDS

- a. Merit certificate of 2nd position in M.Sc from University of Peshawar.
- b. Research Productivity awards-2010, Ministry of Science and Technology Pakistan
- c. Research Productivity awards-2011. Ministry of Science and Technology Pakistan
- d. Research Productivity awards-2012 Ministry of Science and Technology Pakistan
- e. Research Productivity awards-2013. Ministry of Science and Technology Pakistan

H. TEACHING EXPERIENCE

S.No.	Position	From	To	Experience		
				Years	Months	Days
1	Lecturer at GPG Jahanzeb College Swat	01-09-2004	27-11-2008	4	2	26
2	Assistant Professor Department of Chemistry, UOM	28-11-2008	31-12-2013	5	1	3
3	Associate Professor Department of Chemistry, UOM	01-01-2014	09-01-2020	6	-	8
4	Professor Department of Chemistry, UOM	10-01-2020	20-05-2021	1	4	10
Grand				16	7	47
Total Experience				16 Years, 8months and 17 days		

I. ADMINISTRATIVE EXPERIENCE

1. Incharge Chairman, Department of Chemistry, UOM-01/03/2010 to 10/08/2011
2. Principal, UPS and College, UOM-27/09/2012 to 12/11/2012.
3. Coordinator, UPS and College UOM-27/11/2012 to 21/02/2013.
4. Coordinator, Directorate of Works, UOM- 22/02/2013 to 21/01/2014
5. Provost, UOM-01/10/2014 to 15/01/2015.
6. Coordinator, Directorate of Works, UOM-13/03/2014 to 05/01/2017.
7. Focal Person, PMN Laptop Scheme, UOM-12/01/2017 to 14/06/2017.
8. Director Admission, UOM-15/06/2017 to 26/11/2017.
9. Director Administration, UOM-29/11/2017 to 08/08/2018.
10. Chairman, Department of Chemistry, UOM- 02/11/2019 to till date

J. DEMONSTRATED/LEADING EXPERIENCE

1. Member land purchase committee, UOM.
2. Member Selection committee, UOM.
3. Member school and college management committee, UOM.
4. Member House allotment committee, UOM.
5. Member works advisory committee, UOM.
6. Member Academic council, UOM.

7. Member scrutiny committee, UOM.
8. Member inspection committee, UOM.
9. Member vision and mission committee, UOM.
10. Member scholarship/fee concession committee, UOM.
11. Member affiliation committee, UOM.
12. Member HEC Project purchase committee, UOM.
13. Member Semester coordination committee, UOM.
14. Member scrutiny committee, UOM.
15. Member HEC Project purchase committee, UOM.
16. Member HEC Project purchase committee, UOM.
17. Convener scrutiny committee, UOM.
18. Member inquiry committee, UOM.
19. Convener purchase committee, UOM.
20. Member house allotment committee, UOM.
21. Member Advanced board of studies, UOM.
22. Convener special compensatory allowance committee, UOM.
23. Convener fee structure committee, UOM.
24. Convener key performance indicator (KPI) committee, UOM.
25. Convener beautification of the campus for convocation committee, UOM.
26. Convener land agreement committee, UOM.
27. Convener admission scrutiny committee for disable students, UOM.
28. Member undergraduate education policy 2020 committee, UOM.
29. Convener best teacher award committee, UOM.
30. Convener land acquisition committee for woman campus, UOM.
31. Member TTS committee, UOM.
32. Convener for drafting SOPs for University parking, UOM.
33. Convener works advisory committee, UOM.
34. Convener TTS DTRC committee, UOM.
35. Convener Harassment Committee, UOM.
36. Convener Plagiarism Standing Committee, UOM.

K. RESEARCH PROJECTS COMPLETED

Name of Donor Agency	Investigator	Status	Worth Rs.
		Completed	
HEC, Islamabad (NRPU)	Principal	Completed	12,10,080/-
HEC, Islamabad (Books)	Principal	Completed	10,00000
HEC, Islamabad (IPFP)	Co-Principal	Completed	490,000/-
PSF (Research)	Co-Principal	Completed	12,41,575/-

L. CONFERENCES/WORKSHOPS

1. First national conference on fuel and environment, July. **1996**, at Baragali, summer campus, University of Peshawar.
2. First international chemistry conference and 11th national chemistry conference, April, **2001**, Institute of Chemical Sciences, University of Peshawar. Workshop on Spectroscopic techniques, August 2001, at Baragalli, University of Peshawar.
- 3.

M. SEMINARS ARRANGED AS CHIEF ORGANIZER:

SEMINAR-2010:

1. Dr.Raza Shah, Professor, HEJ Research Institute of Chemistry, University of Karachi, Sind- Design, synthesis and Characterization of Supramolecular Nanopores.

SEMINAR-2021:

1. **Dr. Noor Rahman**, Assistant Professor, Department of Chemistry, Shaheed Benazir Bhutto University, Sharringhal Upper Dir, KP-Polymer Characterization and Role of Nanomaterials in Nanocomposite Formation.
2. **Dr. Muhammad Ilyas**, Professor, NCE in Physical Chemistry, University of Peshawar, KP-Green Chemistry”.
3. **Dr. Roozina Khattak**, Assistant Professor, Department of Chemistry, Shaheed Benazir Bhutto Woman University, Peshawar, KP-Role of Solvent in Kinetics and Mechanism of Redox Reaction”.
4. **Dr. Iqbal Hussain**, Professor, Department of Chemistry, Islamia College University, Peshawar, KP-Synthesis of Constano lactones”.
5. **Dr. Khalid Saeed**, Assosicate Professor, Department of Chemistry, Bacha Khan University, Charsadda, KP- Polymer Based Composite.

N. SUPERVISION OF RESEARCH STUDENTS

➤ M.SC STUDENTS THESIS SUPERVISED

1. **Luqman Khan – 2017:** Department of Chemistry, University of Malakand
“Liquid Phase adsorption of cationic dyes onto activated Lime derived from Native mineral”.
2. **Saneeia Taj – 2017:** Department of Chemistry, University of Malakand
“Soil and water analysis for the detection of micro and macro nutrients and its correlation”.
3. **Mehreen – 2016:** Department of Chemistry, University of Malakand
“Potential use of low-cost adsorbent for the removal of Basic dyes from Aqueous solution”.
4. **Amjad Khan – 2016:** Department of Chemistry, University of Malakand
“Conversion of Wheat straw into Activated Carbon and its use for the dyes adsorption”.
5. **Sonia Ali – 2016:** Department of Chemistry, University of Malakand
“Use of Maize Stalk Based dust for the removal of Dyes from aqueous solution”.
6. **Hina Khan – 2016:** Department of Chemistry, University of Malakand
“Adsorption Kinetics of Basic Dyes on activated Carbon”.
7. **Irfan Ul Haq – 2016:** Department of Chemistry, University of Malakand
“Adsorption Kinetics of colored compounds on activated carbon prepared from agricultural waste”.
8. **Barkat Ullah – 2015:** Department of Chemistry, University of Malakand
“Use of Goat droppings as an adsorbent for the removal of organic dyes from aqueous solution”.
9. **Abdul Basit – 2015:** Department of Chemistry, University of Malakand
“Use of Buffalo dung cake as an adsorbent for the removal of dyes from aqueous solution”.
10. **Azizur Rehman – 2015:** Department of Chemistry, University of Malakand
“Use of Buffalo droppings as an adsorbent for the removal of organic dyes from aqueous solution”.
11. **Sunbal Shahzadi – 2015:** Department of Chemistry, University of Malakand
“Use of Cotton Fibres for the removal of Textile dyes: Adsorption Kinetics”.
12. **Nabila – 2013:** Department of Chemistry, University of Malakand
“Investigation of Heavy metals in the agricultural Soil of Faizabad Swat”.
13. **Neelam Abid – 2013:** Department of Chemistry, University of Malakand
“Preparation of activated Carbon from the wood of *Morus Nigra*”.
14. **Naveed Khan – 2012:** Department of Chemistry, University of Malakand “Surface modification of activated carbon prepared from the wood of *Prunus cerasifera*”.

15. **Imran Badshah-2013**: Department of Chemistry, University of Malakand
“Investigation of Mineral in *Allium sativum*, *Zingiber officinale* and *Caralluma eduli*”.
16. **Seema-2005**: Department of Chemistry, University of Malakand
“Nutritional Value of *Abelmoschus esculentus* (*L*) Moench and *Allium cepa* L and its correlation with soil Irrigated by Swat River”.
17. **Hafiz Masood Jan-2006**: Department of Chemistry, University of Malakand
“Nutritional Value of Cereal Crops”.
18. **Haleema Ahmad-2006**: Department of Chemistry, University of Malakand
“Drinking Water Quality of Swat District”.
19. **Kausar-2006**: Department of Chemistry, University of Malakand
“Nutritional Value of Indigenous Medicinal Plants”.
20. **Mr. Imran-2007**: Department of Chemistry, University of Malakand
“Heavy Metals Status of Industrial Effluents and Its Impacts on Human Life”.
21. **Arshad Ali-2007**: Department of Chemistry, University of Malakand
“Food level of *Colocacia esculenta* Linn and its Relation with Soil Irrigated by River Swat”.
22. **Salma-2007**: Department of Chemistry, University of Malakand
“Comparative Study for the Determination of Selected Nutrients in *Solanum tuberosum* L and *Zingiber officinale* L”.
23. **Nazli-2007**: Department of Chemistry, University of Malakand
“Investigation of Specific Elemental Distribution in *Cucumis sativus* L. *Solanum melongena* L and *Momordica charantia* by Atomic Absorption Spectrometry”.
24. **Zia-ud-din-2007**: Department of Chemistry, University of Malakand
“Variations of Contaminants in the Road Side Agricultural Soil of Thana Malakand Agency”.
25. **Shabnum-2008**: Department of Chemistry, University of Malakand
“Quantification of Nutrients in the Fresh Fruits (Orange, Fanta, Banana and Apple) and its Impact on the Functional Regulation of Human Body Activities”.
26. **Rozina-2008**: Department of Chemistry, University of Malakand
“Determination of Metals in the Commercially Available Edible Herbs of Swat District and its Therapeutic value”.
27. **Sony Mehboob-2008**: Department of Chemistry, University of Malakand
“Determination of Mineral Composition in Some Medicinally Important Sample of

Almond, Peanuts and Dry Graps and its Potential Role in the Human Physiology”.

28. **Mashooq Khan-2008**: Department of Chemistry, University of Malakand
“Investigation of Essential Parameters in the Rice Samples and its Relation with Soil and Water”.
29. **Ghulam Ahad-2008**: Department of Chemistry, University of Malakand
“Determination of Pollutants in Mingora Khuawarr and its Role in the Contamination of River Swat”.
30. **Rahil Khan-2008**: Department of Chemistry, University of Malakand
“Exploration of Nutrients in the Agricultural Soil of Saidu Sharif Swat and its Impact on the Plant Body”.
31. **Irfan Khan-2008**: Department of Chemistry, University of Malakand
“Monitoring of Pollutants in River Swat and its Association with Mingora Khuawarr”.
32. **Mohammad Tufail-2008**: Department of Chemistry, University of Malakand
“Assessment of Pollutants in Water of River Kabul and its Impacts on the Health of Human Life”.
33. **Salman Khan-2008**: Department of Chemistry, University of Malakand
“Investigation of Nutrients in the Agricultural Soil of Kabal District and its Role in the Plant Body”.
34. **Asif Amir-2012**: Department of Chemistry, University of Malakand
“Mineral Status of *Daucus carrota* (L), *Brassica Rapa var Rapa Sativas* (L) and *Raphanus sativus* (L) and its correlation with soil irrigated by Kalpani Stream.

➤ **BS STUDENTS THESIS SUPERVISED**

1. **Muhammad Ilyas – 2020**: Department of Chemistry, University of Malakand
“Adsorption studies for the removal of acid yellow 76 from aqueous solution on Activated Carbon: Adsorption Kinetics”.
2. **Maria Begum – 2020**: Department of Chemistry, University of Malakand
“Adsorption studies of methylene green from aqueous solution on abiotic adsorbent”.
3. **Afaq Ahmad – 2020**: Department of Chemistry, University of Malakand
“Adsorption removal of Basic Blue 3 from Aqueous Solution By Activated Carbon: Adsorption Kinetics”.
4. **Riffat Jehan – 2020**: Department of Chemistry, University of Malakand
“Adsorption studies of Acid Yellow 76 from aqueous solution on treated Clay”.
5. **Umair Ahmad – 2020**: Department of Chemistry, University of Malakand

- “Removal of Basic Green 5 from aqueous solution by activated carbon”.
6. **Shaista Noor – 2020:** Department of Chemistry, University of Malakand
“Kaolinite with high adsorption capacity for the effective removal of Orange G from aqueous solution: Adsorption Kinetics”.
 7. **Khalid – 2020:** Department of Chemistry, University of Malakand
“Adsorptive Removal of Crocen Orange G from aqueous solution By Bone Charcoal: Kinetics”.
 8. **Absarul Haq – 2020:** Department of Chemistry, University of Malakand
“Adsorptive Removal of Natural Red from Aqueous solution by Bone Charcoal”.
 9. **Mansoor Khan – 2018:** Department of Chemistry, University of Malakand
“Adsorption of Textile Dyes from Aqueous solution By Activated Cauliflower Roots”.
 10. **Uzma Safi – 2018:** Department of Chemistry, University of Malakand
“Adsorption Studies of Basic Dyes on the dust of Nut family”.
 11. **Shahid Khan – 2018:** Department of Chemistry, University of Malakand
“Adsorption Kinetics of Textile dyes on Plaster of Paris”.
 12. **Ali Umar – 2018:** Department of Chemistry, University of Malakand
“Bio-sorbent for the removal of anionic dyes Nile Blue and Toluidine from aqueous solution”.
 13. **Zahid Zaman – 2018:** Department of Chemistry, University of Malakand
“Removal of Nile blue and Methylene Blue dyes from aqueous solution”.
 14. **Taskeen Mehmood – 2015:** Department of Chemistry, University of Malakand
“Adsorption Studies of Basic Dyes on activated carbon, Prepared from the wood of *Dodonea burmanniana*”.
 15. **Aiman Bibi – 2015:** Department of Chemistry, University of Malakand
“Adsorption kinetics of colored compounds on activated carbon, prepared from Banana shells”.
 16. **Inamullah Mian – 2014:** Department of Chemistry, University of Malakand
“Preparation of Activated Carbon from the wood *Eucalyptus lenceolata* and its use for the waste water treatment”.
 17. **Shabeena – 2014:** Department of Chemistry, University of Malakand
“Preparation of activated carbon from the wood *Pinus Cembra* and its Use for the wastewater treatment”.

➤ **M.PHIL SCHOLARS SUPERVISION-UNIVERSITY OF MALAKAND**

1. **Azmat Ullah-2012:** Department of Chemistry, University of Malakand
Adsorptive removal of heavy metal ions from aqueous solution onto low cost biosorbent.
2. **Muhammad Ali-2013:** Department of Chemistry, University of Malakand
Calcination and characterization of hydrous aluminum silicate and its use for the wastewater treatment.
3. **Saira Naz-2013:** Department of Chemistry, University of Malakand
Surface characterization of natural adsorbent and its utilization for the dye removal from wastewater-adsorption kinetics and equilibrium studies.
4. **Salma-2014:** Department of Chemistry, University of Malakand
Adsorption studies of textile dyes onto activated carbon prepared from low cost precursors.
5. **Shahid Khan-2014:** Department of Chemistry, University of Malakand
Removal of aliphatic organic acids from aqueous solution by using animal droppings as a low cost biosorbent.
6. **Muhammad Ikram-2014:** Department of Chemistry, University of Malakand
Adsorptive potential of chicken egg-shell for the removal of dicarboxylic acids from wastewater.
7. **Murad Khan-2015:** Department of Chemistry, University of Malakand
Synthesis and characterization of doped magnesium and cadmium ferrite nanoparticles.
8. **Naveed Khan-2015:** Department of Chemistry, University of Malakand
Removal of organic contaminants from water onto powder activated carbon, prepared from animal waste.
9. **Imran Badshah-2016:** Department of Chemistry, University of Malakand
“Tobacco stem as an adsorbent for the removal of organic dyes”.
10. **Aslam Khan-2017:** Department of Chemistry, University of Malakand
Bio-based nano-fibrils by acid hydrolysis: autoclave and ultra-sonication treatments.
11. **Inamullah Mian-2017:** Department of Chemistry, University of Malakand
Cellulose extraction from wood: Effect of preparation conditions on their morphological behavior.
12. **Barkat Ullah-2019:** Department of Chemistry, University of Malakand
Synthesis of low-cost silica nanoparticles from polyethylene glycol-wastewater treatment and heterogeneous catalysis.
13. **Luqman Khan-2019:** Department of Chemistry, University of Malakand

Synthesis of co-polymeric hydrogel of acrylamide and 2-poly (hydroxyethyl methacrylate) and its use for the adsorption of basic blue 3 dye.

14. **Miss Uzma-2020:** Department of Chemistry, University of Malakand

Synthesis of supported bimetallic nanoparticles and its use for dyes removal: adsorption studies.

15. **Miss kausar Shah-2020:** Department of Chemistry, University of Malakand

Adsorption Studies Of Ionic Surfactants On Activated Slaked Lime Substrate.

16. **Ali Umar-2021:** Department of Chemistry, University of Malakand

Synthesis of supported bimetallic nanoparticles and its use for dyes removal: adsorption studies.

17. **Miss Wahida-2021:** Department of Chemistry, University of Malakand

Preparation of Activated Carbon from the wood of Paulownia tomentosa T: Adsorption of acidic Dyes.

➤ **PH.D SCHOLARS SUPERVISION-UNIVERSITY OF MALAKAND**

1. **Azmat Ullah-2019:** Department of Chemistry, University of Malakand

Removal of antibiotics from wastewater by nanocomposites and membrane hybrid technology. (Completed and degree awarded)

2. **Muhammad Ali-2019:** Department of Chemistry, University of Malakand

Crossbreed pilot plant membrane separation of surfactants from wastewater using fused magnetite carbon nanocomposite as an adsorbent". (Completed and degree awarded)

3. **Hanif Subhan-2021:** Department of Chemistry, University of Malakand

Synthesis of poly acrylic acid based copolymer hydrogels adsorbent and its use for the dyes removal from aqueous solutions". (Completed and degree awarded)

4. **Imran Badshah-2020:** Department of Chemistry, University of Malakand

Fabrication of cellulose base polymers for the removal of dyes from model wastewater. (Completed)

5. **Salma Jabeen-2021:** Department of Chemistry, University of Malakand

Synthesis of polymeric hydrogels for the adsorption of dyes: compositional effect on efficiency. (Completed)

O: THESIS EVALUATION OF DIFFERENT UNIVERSITIES

➤ **M.PHIL THESIS EVALUATION**

1. **Bakhtawara-2021** NCE in Physical Chemistry, University of Peshawar

"Synthesis and rheological study of ter-copolymer [poly (2-acrylamido, 2-methyl, 1-propanesulfonic acid-co-acrylamide-co-acrylic acid)] hydrogel using different cross-linker".

2. **Muhammad Arif Khan-2021** NCE in Physical Chemistry, University of Peshawar
“Evaluation of energy storage properties of electroactive copolymers synthesized in brine solution”.
3. **Raheela Tawaj-2021**, Department of Chemistry, AWKU Mardan.
“Synthesis and enzyme inhibition activity of manganese(ii) complexes”
4. **Noorina BiBi-2021**, NCE in Physical Chemistry, University of Peshawar.
“Catalytic degradation of dichlorophene in wastewater by FeO /TiO₂/H₂O₂-Process: kinetics, degradation intermediates and toxicity evaluation”.
5. **Sher Ali Khan-2021**, NCE in Physical Chemistry, University of Peshawar
“Synthesis of magnetite graphene oxide doped tercopolymer superadsorbent hydrogel for crystal violet removal from wastewater.
6. **Syed Faizan Ali-2021**, NCE in Physical Chemistry, University of Peshawar.
“Synthesis and electrochemical investigation of reduced graphene oxide-polyacrylamide hydrogel with transition metals.”
7. **Taj Muhammad-2021**, ICS, University of Peshawar.
“Desulfurization of petroleum distillates using composites of activated carbon and metals impregnated hydroxyapatite”.
8. **Zeeshan Ahmad-2021**. Department of Chemistry, AWKU Mardan
“Synthesis, Antioxidant and Enzyme Inhibition Study of Heteroleptic Zinc(II) Complexes”.
9. **Numan Muhammad Khan-2020**, NCE in Physical Chemistry
“Synthesis and characterization of mn²⁺ and co²⁺ co-doped tio₂ coupled with persulfate system: optimization, kinetics and degradation studies”.
10. **Mumtaz Khan-2020**, ICS, University of Peshawar.
“Evaluation of Cu and Zn impregnated waste tyres char for treatment of petroleum refinery effluents”.
11. **Mansoor Khan-2020**, NCE in Physical Chemistry, University of Peshawar.
“Synthesis and mechanical characterization of copolymer hydrogels based on acrylic acid and unmodified gum Arabic”.
12. **Muhammad Ibrahim-2020**, Department of Chemistry, AWKU Mardan
“Synthesis and characterization of Ni doped Fe₂O₃ catalyst for photodegradation of bromo phenol blue under visible light irradiation.
13. **Reema-2020**, Department of Chemistry, AWKU Mardan.
“Synthesis, characterization and enzyme inhibitory studies of metal complexes of 1-[4-bromophenyl methyl} naphthalen-2-ol”.

14. **Sybil-2020** Department of Chemistry, AWKU Mardan.
“Synthesis, characterization and dna binding potential of cobalt (ii) complexes”.
15. **Kashif Zaman-2019**. Department of Chemistry, AWKU Mardan.
“Detection of organochlorine pesticides in surface and ground water of district nowshera and mansehra kp, Pakistan”
16. **Kashmala-2019**. Department of Chemistry, AWKU Mardan.
“In vitro antioxidant potential of zinc (II) carboxylates”.
17. **Wajid Ali-2019**. Department of Chemistry, AWKU Mardan.
“Phytoluminescence studies of transition metal complexes of 1-{4-[(2-hydronaphthalidene) Amino] Phenyl} Ethanone”.
18. **Naushad Ullah-2019**. NCE in Physical Chemistry, University of Peshawar.
“Synthesis and characterization of uniform iron oxide nano particles and their catalytic activity”.
19. **Mehnaz BiBi-2019**. Department of Chemistry, AWKU Mardan.
“Antioxidant and DNA Binding Potential of Lewis Base Zinc (II) Carboxylates”.
20. **Mehreen Nazir-2018**. Department of Chemistry, AWKU Mardan.
“Effect of crosslinkers on the physicochemical and stimuli responsive behavior of chitosan-based microgel”.
21. **Inayat Feroz-2018**. Department of Chemistry, AWKU Mardan.
“Spectral, electrochemical and thermal studies of schiff base transition metal complexes”.
22. **Majid Khan-2018**. NCE in Physical Chemistry, University of Peshawar.
23. **Tawab Shah-2018**. Department of Chemistry, AWKU Mardan.
“Impact of brock kiln induced atmospheric heavy metals on some vegetation’s antioxidative responses”.
24. **Muhammad Imran-2018**. Department of Chemistry, AWKU Mardan.
“DNA binding and antioxidant potential of schiff base complexes”.
25. **Zahid Hussain-2018**. Department of Chemistry, Shaheed Benazir Bhutto University, Sharringhal Dir Upper.
“Synthesis of nanocellulose from ailanthus altissima cellulose: a novel biomass production”.
26. **Ghazala Irum-2018**. NCE in Physical Chemistry, University of Peshawar.
“Morphology controlled synthesis and characterization of uniform fine particles of nickel compounds through oxalate route”.
27. **Zia-Ur-Rehman-2018**. Shaheed Benazir Bhutto University

- “Sharringhal Dir Upper Interaction of synthetic polymer (4-(6-(4-vinylphenoxy) Hexyloxy) benzoic acid with ionic surfactants”.
28. **Muhammad Ihsan Danish-2018**. Shaheed Benazir Bhutto University, Sharringhal Dir Upper
“Comparision of different Iron-based nanoparticles for nitrate removal from water”.
29. **Muhammad Irshad ul Haq-2018**. Shaheed Benazir Bhutto University, Sharringhal Dir Upper.
“Synthesis of biodegradable polymer polyactic acid (PLA) interaction with ionic surfactants”.
30. **Sahibzada Fahim-Ul-Haq-2018**. Shaheed Benazir Bhutto University, Sharringhal Dir Upper. Effect of maillard reaction on physicochemical, functional and antioxidant properties of walnut protein isolate”.
31. **Sehrish Rehman-2018**. Department of Chemistry, AWKU Mardan.
“Synthesis and characterization of polyaniline doped with dodecylbenzenesulfonic acid and oxalic acids”.
32. **Naveed Khan-2017**. ICS, University of Peshawar.
“Removal of organic contaminants from water onto powder activated carbon prepared from animal waste”.
33. **Muhammad Rehman-2017**. Department of Chemistry, AWKU Mardan.
“Thermal and antioxidant studies of Schiff base transition metal complexes”.
34. **Saeed-Ur-Rehman-2017**. Department of Chemistry, AWKU Mardan.
“Study of different formulation of moxifloxacin 400mg tablets available in local market of mardan by using dissolution profile”.
35. **Nadeem Khan-2017**. Department of Chemistry, AWKU Mardan.
“A comparative study of electrochemical degradation of toxic food dyes in aqueous medium using Ti/Ru..... anode”.
36. **Faemanullah-2017**. Department of Chemistry, AWKU Mardan.
“Development of metal based anti-diabetic compounds”.
37. **Arhseen Siraj-2016**. ICS, University of Peshawar,
“Synthesis and characterization of China clay-based composite as adsorbent for removal of copper from aqueous solution”.
38. **Nasiha Naz-2016**, Department of Chemistry, AWKU Mardan.
“Removal of molybdenum from aqueous solution by poly inclusion membrane”.
39. **Zakia Amin-2016**, ICS, University of Peshawar

“Treatment of dyes contaminated water using surfactants modified activated carbon derived from rice husk”.

❖ **PH.D THESIS EVALUATION**

1. **Raina Aman Qazi-2021.** NCE in Physical Chemistry, University of Peshawar
“Preparation, characterization and application of degradable and non-degradable polymer-carbon nanotube-based composites”.
2. **Saira-2019.** ICS, University of Peshawar
“Synthesis of graphene-metal and metal oxide nanocomposites for electrochemical and microbial application”.

P: PH.D PUBLIC DEFENSES ATTENDED

1. **Raina Aman Qazi-2021.** NCE in Physical Chemistry, University of Peshawar
“Preparation, characterization and application of degradable and non-degradable polymer-carbon nanotube-based composites”.
2. **Saira-2019.** ICS, University of Peshawar
“Synthesis of graphene-metal and metal oxide nanocomposites for electrochemical and microbial application”

Q: RESEARCH PUBLICATIONS

1. Noorul Amin, Saeed Gul, Sabiha Sultana and **Sultan Alam**. Preparation and Characterization of Mesoporous Silica from Bagasse Bottom Ash from the Sugar Industry. Crystals 11, 938, **2021**. <https://doi.org/10.3390/cryst11080938>
2. **Sultan Alam**, Muhammad Sufaid Khan, Wahida Bibi, Ivar Zekker. Preparation of Activated Carbon from the Wood of Paulownia tomentosa as an Efficient Adsorbent for the Removal of Acid Red 4 and Methylene Blue Present in Wastewater. Water, 13, 1453. **2021**. <https://doi.org/10.3390/w13111453>.
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6. Hanif Subhan, **Sultan Alam**, Luqman Ali Shah, Muhammad Waqas Ali, Muhammad Farooq “Sodium alginate grafted poly(N-vinyl formamide-co-acrylic acid)-bentonite clay hybrid hydrogel for sorptive removal of methylene green from wastewater. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 611, 125853, **2021**.
7. Aslam Khan, Dandi Wei, Zhuan Wang, Xintai Su, Jide Wang, **Sultan Alam**, Lu Wang, Ronglan Wu, Anatoly S. Maloletnev and Chao Yang “MOF-derived nickel–cobalt bimetal oxide nanostructures as a cooperative catalyst for the reduction of 4-nitrophenol. J Chem Technol Biotechnol DOI 10.1002/jctb.6582. **2020**
8. Noor-ul-Amin, Sabiha Sultana, Yousaf Hameed, Saeed Gul, **Sultan Alam**, Amir Naveed. “Synthesis of zeolite-A from bagasse ash and removal of heavy metals from industrial effluents” Advances in Cement Research, 2020, <https://doi.org/10.1680/jadcr.18.00228>.
9. Tanzil Ur Rehman, Luqman Ali Shah, Noor Saeed Khattak, Abbas Khan, Noor Rehman and **Sultan Alam**. Superabsorbent Hydrogels for Heavy Metal Removal, 2020, DOI: <http://dx.doi.org/10.5772/intechopen.89350> (Book Chapter).

10. **Sultan Alam**, Luqman Khan, Luqman Ali Shah, Noor-ul-Amin, Noor Rehman and Najeeb-ur-Rehman. "Synthesis of co-polymeric hydrogels of acrylamide and 2-(hydroxyethyl methacrylate) and its use for the adsorption of basic blue 3 dye". *Z. Phys. Chem.* **2020**. <https://doi.org/10.1515/zpc-2020-1631>.
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20. Luqman Ali Shah, Rida Javed, Abbas Khan, Irum Bibi, Noor Saeed and **Sultan Alam**. One-Pot Synthesis and Rheological Study of Cationic Poly(3-acrylamidopropyltrimethyl ammoniumchloride)P(APTMACl) Polymer Hydrogels, *Zeitschrift fur Physikalische Chemie* **2018**. Impact factor 1.144. DOI: <https://doi.org/10.1515/zpch-2018-1310>
21. Noor Rehman, **Sultan Alam**, Noor Ul Amin, Inamullah Mian, and Hidayat Ullah, Ecofriendly Isolation of Cellulose from *Eucalyptus lenceolata*: A Novel Approach. *International Journal of Polymer Science* Volume **2018**, Article ID 8381501, pp 1-7, <https://doi.org/10.1155/2018/8381501>
22. Inamullah Mian, **Sultan Alam**, Xian Li, Mei Zhong, Noor Rehman, Fengyun Ma, Aslam Khan, Mehreen. *Isolation of Cellulose from saw dust of Cedrus Deodara: Effect of Preparation Conditions on their Morphological behavior*, *The International Journal of Science & Technoledge*, 5 (12), **2017**, 140-146.
23. Noor Rehman, Hidayat Ullah, **Sultan Alam**, Abdul Khaliq Jan, Sher Wali Khan and Muhammad Tariq. *Surface and thermodynamic study of micellization of non-ionic surfactant/diblock copolymer system as revealed by surface tension and conductivity*, *Journal of Materials and Environmental Sciences* 8 (4) **2017**, 1161-1167.
24. **Sultan Alam**, Noor Rehman, Noor ul Amin, Luqman Ali Shah, Inamullah Mian, Hidayat Ullah, *Removal of Basic Green 5 by Carbonaceous Adsorbent: Adsorption Kinetics*. *Bulletin of the Chemical Society of Ethiopia*., 31(3), **2017**, 411-422
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- effluents of Gadoon industrial estate, Pakistan and its comparison with fresh water irrigated soil” *Journal of Agricultural Chemistry and Environment*, 3, **2014**, 80-87.
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R: Books Published

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3. **Sultan Alam**, Imran Badshah, Faridullah, “Mineral Profile in Vegetables: *Allium sativum*, *Zingiber officinale* and *Caralluma eduli*” Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2015) [ISBN: 978-3-659-23908-3]. Available on amazon.com
4. **Sultan Alam**, Noor-ul-Amin, Inamullah Mian, *Eucalyptus lenceota* Based Activated

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Adsorption of Basic Green-5 and Methylene Blue. Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2015) [ISBN: 978-3-659-66912-5]. Available on amazon.com

5. **Sultan Alam**, Noor-ul-Amin, Saira Naz. Natural Adsorbent and Dyes: Waste Wood and its Potential Use for the Treatment of Textile Industrial Effluents. Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2015) [ISBN: 978-3-659-66713-8]. Available on amazon.com
6. **Sultan Alam**, Noor-ul-Amin, Shahid Khan, Animal Droppings as a Low cost Biosorbent. Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2015). [ISBN: 978-3-659-68450-0]. Available on amazon.com
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8. **Sultan Alam**. "Preparation of Activated Carbon from low cost Precursors and its Use for the Wastewater Treatment" Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2012) [ISBN: 978-3-8484-3830-3]. Available on amazon.com
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11. **Sultan Alam**, Seema BiBi "Minerals in Vegetables and its Role in the Human Body- Association of Minerals among Water, Soil and Vegetables" Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2012) [ISBN: 978-3-8484-2419-1]. Available on amazon.com
12. **Sultan Alam**, Masood Jan, Manzoor Ahmad "Nutritional profile of Wheat and maize- Association with Agricultural Soil" Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2012) [ISBN: 978-3-8484-3194-6]. Available on amazon.com
13. **Sultan Alam**, Haleema Ahmad, Azmat Ullah "Drinking water Quality in Rural Communities

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14. **Sultan Alam**, Kausar Hilal, Fazal Mabood “Nutritional Value of Indigineous Medicinal Plants-And its Relationship with Habitate” Lap Lambert Academic Publishing GmbH & Co. KG, Germany, (2012) [ISBN: 978-3-8484-3832-7]. Available on amazon.com
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