

NAME: **DR. SULTAN ALAM**

FATHER NAME: **MR. SULTAN MEHMOOD**



Position: **Assistant Professor**

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Present Address: Department of Chemistry, University of Malakand, Chakdara Dir (L).

1. ACADEMICS:

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

2. FIELD OF SPECIALIZATION:

1. Physical Chemistry/Applied Chemistry/Environmental Chemistry (**Surface Chemistry**) in Ph.D

3. MY THESIS TITLES:

1. **Ph. D** = "Characterization and Regeneration of Carbonaceous Substrate Produced from Biotic Precursors and its Use for the Waste Water Treatment"
 2. **M. Phil** = "Adsorption Studies of Aliphatic Organic Acid from Aqueous Solutions on Commercial Granular Activated Charcoal"
 3. **M. Sc** = "Monitoring of Industrial Effluents of Industrial Estate at Kohat Road Peshawar"
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4. CAREER RESUME:

1. **Lecturer (visiting):** Department of Chemical Engineering, Engineering University, Peshawar, from **1998-2000**.
 2. **Lecturer (Permanent):** Higher Education Department (Colleges) Govt. of N.W.F.P. From August 28, 2000 to 28 November 2008.
 3. **Assistant Professor (Permanent):** Department of Chemistry, University of Malakand, Since 28 November 2008.
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5. RESEARCH INTERESTS:

5.1 Surface Chemistry

1. Conversion of Low cost precursors into activated carbon like agricultural waste material, fast growing wood and animal bones.
2. Regeneration of industrial spent carbon.
3. Characterization of adsorbents by pH, moisture content, ash content, surface area (BET, DR, BJH, and Langmuir), pore size distribution, FTIR, XRD, SEM and EDS.
4. Surface chemistry at solid-liquid interface i.e. Activated carbon, Clays and Soil.
5. Removal of organic and in-organic pollutants from aqueous solutions by active adsorbents like activated carbon, clays and soil.

5.2 Environmental Chemistry

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

5.3 Food Chemistry

8. Quantification of nutrients in the indigenous medicinal plants and its impact on the functional regulation of human body activities.
9. Determination of metals in the commercially available edible herbs and its therapeutic value.
10. Exploration of nutritional status of plants habitat.
11. Investigation of food contaminants.

6. AWARDS:

Second position in M.Sc Chemistry through out N.W.F.P, Pakistan during the session 1995-1996

7. CONFERENCE / WORKSHOP ATTENDED:

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.
 3. Workshop on spectroscopic techniques, August, **2001**, at Baragali, summer campus, University of Peshawar.
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8. RESEARCH SUPERVISION

8.1: (M.Sc Students):

1. Miss. Seema: “Nutritional Value of *Abelmoschus esculentus* (L) Moench and *Allium cepa* L and its correlation with soil Irrigated by Swat River” (2005).
2. Mr. Hafiz Masood Jan: “Nutritional Value of Cereal Crops” (2006).
3. Miss. Haleema Ahmad: “Drinking Water Quality of Swat District” (2006).
4. Miss. Kausar: “Nutritional Value of Indigenous Medicinal Plants” (2006).
5. Miss. Farzana: “Nutritional Value of Medicinal Plants” (2006).
6. Mr. Imran: “Heavy Metals Status of Industrial Effluents and Its Impacts on Human Life” (2007).
7. Mr. Arshad Ali: “Food level of *Colocacia esculenta* Linn and its Relation with Soil Irrigated by River Swat”. (2007).
8. Miss Salma: “Comparative Study for the Determination of Selected Nutrients in *Solanum tuberosum* L and *Zingiber officinale* L” (2007).
9. Miss. Nazli: “Investigation of Specific Elemental Distribution in *Cucumis sativus* L. *Solanum melongena* L and *Momordica charantia* by Atomic Absorption Spectrometry” (2007).
10. Mr. Zia-ud-din Khan: “Variations of Contaminants in the Road Side Agricultural Soil of Thana Malakand Agency” (2007).
11. Miss Shabnum “Quantification of Nutrients in the Fresh Fruits (Orange, Fanta, Banana and Apple) and its Impact on the Functional Regulation of Human Body Activities” (2008).
12. Miss Rozina “Determination of Metals in the Commercially Available Edible Herbs of Swat District and its Therapeutic value” (2008).
13. Miss Sony Mehboob “Determination of Mineral Composition in Some Medicinally Important Sample of Almond, Peanuts and Dry Graps and its Potential Role in the Human Physiology” (2008).
14. Mr. Mashooq Khan “Investigation of Essential Parameters in the Rice Samples and its Relation with Soil and Water” (2008).
15. Mr. Ghulam Ahad “Determination of Pollutants in Mingora Khuawarr and its Role in the Contamination of River Swat” (2008).
16. Mr. Rahil “Exploration of Nutrients in the Agricultural Soil of Saidu Sharif Swat and its Impact on the Plant Body” (2008).
17. Mr. Irfan Khan “Monitoring of Pollutants in River Swat and its Association with Mingora Khuawarr” (2008).
18. Mr. Mohammad Tufail “Assessment of Pollutants in Water of River Kabul and its Impacts on the Health of Human Life” (2008).
19. Mr. Salman “Investigation of Nutrients in the Agricultural Soil of Kabal District and its

Role in the Plant Body” (2008).

8.1: (M.Phil/Ph.D Scholars):

1. **Mr. Mashooq Khan** “*Calcination and Characterization of Kaolinite Produced from biotic Precursors and its Use for the Wastewater Treatment*”
2. **Mr. Mohammad Ali** “*Calcination and Characterization of calcite Produced from biotic Precursors and its Use for the Wastewater Treatment*”

9. EXPERIENCE

1. Three years teaching experience at Department of Chemical Engineering, Engineering University, Peshawar, from 1997-2000.
2. Two years research in M. Phil, Institute of Chemical Sciences, University of Peshawar. Fax/Tel. +92-91-9216652 (O).
3. Four years research in Ph.D, Institute of Chemical Sciences, University of Peshawar. Fax/Tel. +92-91-9216652 (O).
4. Eight years experience as Lecturer in Chemistry in Higher Education Department (Colleges).
5. Since 28, November 2008 in Department of Chemistry, University of Malakand, Chakdara, Dir (L).
6. Since March 3, 2010 working as a Chairman, Department of Chemistry, University of Malakand.
7. Excellent skills in research proposal writing to international donor agencies for research grants.
8. Excellent skills in BS-Chemistry, M.S and M.Phil/Ph.D curriculum making.
9. Excellent experience in comparative statement preparation and purchase of equipments, Glassware and Chemicals.
10. Convenor/Member of “Admission Committee” for BS, M.Sc and M.Phil/Ph.D.
11. Convenor/Member of “Departmental Purchase Committee”, University of Malakand.
12. Convenor/Member of “Departmental Graduate Studies Committee”, University of Malakand.
13. Excellent skills in Advance research Laboratory designing for BS, M.Sc and M.Phil/Ph.D.
14. Member of “General Purchase Committee” of University of Malakand.
15. Member of Advance Studies and Research Board (ASRB) of University of Malakand.
16. Member of “Inspection Committee” for Provisional Affiliation of affiliated colleges.
17. Member of “Semester Coordination Committee”, University of Malakand.
18. Member of “Vision/Mission Committee” of University of Malakand.
19. Member of “Scholarship/fee concession Committee” of University of Malakand.
20. Member of “Selection Committee” of University of Malakand.

10. PROFESSIONAL ACHIEVEMENTS:

- HEC approved Ph.D supervisor
- HEC approved research project entitled “*Calcination and Characterization of Kaolinite Produced from biotic Precursors and its Use for the Wastewater Treatment*”.

11. PUBLICATIONS

Published Articles

1. F. K. Bangash, **S. Alam**, M. Khan, Adsorption Studies of Basic Green 4 from Aqueous Solution on Ca²⁺ Exchanged Clay. *Tenside Surf. Det.* 48(5), **2011**, 366-374.
2. **S. Alam**, F. Mabood, Noor-ul-Amin, M. Sadiq, F. K. Bangash. “Removal of Triphenylmethane Dye from Aqueous Solution by Carbonaceous Adsorbent” *Tenside Surf. Det.* 48 (2), **2011**, 134-142.
3. N. Amin; K. Ali, M. T. Shah, **S. Alam**. Chemical activation of bagasse ash in cement mortar. *Advances in Cement Research.* **2011**, 23(2), 89-95.
4. N. Amin, **S. Alam**. Activation of bagasse ash in cement using different techniques, *Proceedings of the ICE - Construction Materials.* **2011**, 199-204.
5. **S. Alam**, M. Ahmad and F. K. Bangash. “Adsorption of Azo dye on Activated Carbon Prepared from Waste Wood: 2. Equilibrium” *J. Chem. Soc. Pak.* **2010**, 32 (6), 695-703.
6. F. Mabood, M. R. Jan, J. Shah, F. Jabeen, S. Alam, M. Sadiq, J. Hussain, Z. Hussain “Catalytic Conversion of Waste Inner Tube Rubber (Isobutylene Isoprene) into Valuable Product” *J. Chem. Soc. Pak.* **2010**, 32 (6), 767-773.
7. **S. Alam**, F. K. Bangash “Surface Area and Pore Size Distribution of Activated Carbon Produced from Low Cost Precursors” *J. Chem. Soc. Pak.* **2009**, 31(5), 705-711.
8. **S. Alam**, M. Ahmad, F. K. Bangash “Removal of Brilliant Blue R from Aqueous Solution on Activated Carbon Produced from Carbonaceous Substrate” *Tenside Surf. Det.* 46, **2009**, 1-9.
9. F. K. Bangash, **S. Alam**. “Adsorption of Acid Blue 1 on Activated Carbon Produced from the Wood of *Ailanthus altissima*.” *Braz. J. Chem. Eng.* 26 (2), **2009**, 275-285.
10. **S. Alam**, I. Ahmad, F. K. Bangash. “Investigation of Specific Elemental Distribution in *C. sativus* *L. S. melongena* *L* and *M. charantia* by Atomic Absorption Spectrometry”. *J. Chem. Soc. Pak.* 31(9), **2009**, 31-38.
11. **S. Alam**, Seema, F. K. Bangash, Elemental Analysis of Elemental Carbon by E.D.S Spectrophotometry and X-ray Diffraction. *J. Chem. Soc. Pak.* **2009**, 31(9), 46-58.
12. M. Sadiq, M. Ilyas, **S. Alam**, F. Mabood “Comparative Study of Commercially Available ZrO₂ and Laboratory Prepared ZrO₂ for Liquid Phase Solvent Free Oxidation of Cyclohexanol” *J. Pak. Mater. Soc.* **2009**, 3 (2), 71-76.

13. M. Sadiq, Pher G. Anderson, M. Ilyas, **S. Alam**, F. Mabood "Catalytic Activity of New Oxazoline Phosphinite N, P-Ligand-iridium Complexes in Asymmetric Hydrogenation of Olefines. Imines and Thiophene" *J. Pak. Mater. Soc.* **2009**, 3 (2), 58-66.
14. **S. Alam**, I. Ahmad, Zia-ud-din. F. K. Bangash, Variation of Contaminants in the Roadside Agricultural Soil of Thana Malakand Agency. *J. Chem. Soc. Pak.* **2008**, 30(6), 800-8004.
15. **S. Alam**, Zia-ud-Din, I. Ahmad, F. K. Bangash. Comparative Study for the Determination of Selected Nutrients in *S. tuberosum* L and *Z. officinale* L. *J. Chem. Soc. Pak.* 30 (4), **2008**. 588-95.
16. **S. Alam**, M. Hussain, I. Ahmad, F. K. Bangash. "Heavy Metal Status of Industrial Effluents and its Impact on Human life" *J. Chem. Soc. Pak.* 30 (4), **2008**. 521-528.
17. **S. Alam**, S. Ahmad and F. K. Bangash. "Drinking Water Quality of Swat District" *J. Chem. Soc. Pak.* 30 (1), **2008**. 1-9,
18. F. K. Bangash, **S. Alam**. "Brilliant blue R Adsorption from Aqueous Solution on Activated Carbon Produced from *Corncoobs* Waste." *J. Chin. Chem. Soc.* **2007**, 54 (3), 1-12.
19. **S. Alam**, F. K. Bangash, I. Ahmad. "Kinetics of Acid Blue 1 Adsorption from Aqueous Solution by Carbonaceous Substrate Produced from Biotic Precursor." *Chin. J. Chem.* **2007**, 25, 596-604.
20. F. K. Bangash, **S. Alam**. "Adsorption of Brilliant Blue R on Biotic Precursor Based Carbon." *J. Chem. Soc. Pak.* 29, (5), **2007**, 401-414.
21. **S. Alam**, F. K. Bangash, H. Khan. "Adsorption of Acid Orange 7 by Activated Carbon Produced from Agricultural Waste: 1. Kinetics". *J. Chem. Soc. Pak.* 29, (6), **2007**, 558-564.
22. F. K. Bangash, S. Ahmad, T. Ahmad, **S. Alam**. "Effect of Low Dose γ -Radiations on the Stability of Canola and Sunflower Oil." *J. Chem. Soc. Pak.* 29, (3) **2007**, pp. 200-203.
23. **S. Alam**, M. S. Wahid, A. Ali, I. Ahmad and F.K. Bangash. "Medicinal and Nutritional Status of *Colocacia esculenta* L and its Relation with Soil" *J. Chem. Soc. Pak.* 29, (4), **2007**, pp. 332-342.
24. F. K. Bangash, **S. Alam**. "Kinetic of Patent Blue VF Adsorption from Aqueous Solution on Activated Bone Charcoal". *J. Chin. Chem. Soc.* **2006**, 53 (5), 1091-1108.
25. F. K. Bangash, **S. Alam**. "Removal of Acid Yellow 34 from Aqueous Solution by Activated Charcoal of Animal Bones." *Tenside Surf. Det.* **2006**, 43 (6), 299-309.
26. F. K. Bangash, **S. Alam**, "Interaction of Acid Yellow 29 with Activated Carbon Prepared from Cellulosic Precursor: 1. Kinetics." *J. Chem. Soc. Pak.* 28, (6), **2006**, pp. 528-533.
27. M. Shakirullah, I. Ahmad, K. Mehmood, A. Khan, H. Rehman, **S. Alam**, and A. A. Shah. "Physicochemical Study of Drinking water of Dir Districts" *J. Chem. Soc. Pak.* **2005**, 27 (4), 374-388.
28. F. K. Bangash, **S. Alam**. "Extent of Pollution in the Effluents of Some Selected Industries of Hayatabad Industrial Estate, Peshawar". *J. Chem. Soc. Pak.* **2004**, 26(3), 271.
29. F. K. Bangash, **S. Alam**, R. Afzal. "Micronutrient Status and Phosphate Fractions in Chitral District

- Agricultural Soils". *J. Chem. Soc. Pak.* **2003**, 25(4), 281 - 288.
30. F. K. Bangash, **S. Alam**. "Quality Parameters and its Impact on the Drinking Water of Peshawar Division, Pakistan". *J. Chem. Soc. Pak.*, **2003**, 25(2), 125 – 132.
31. F. K. Bangash, **S. Alam**. "Assessment of Pollutants and its Impacts on the Drinking Water Quality of Malakand Division, Pakistan". *J. Chem. Soc. Pak.*, **2003**, 25(1), 1 - 8.
32. Y. Iqbal, **S. Alam**, M. N. Khan, M. Ishaq, S. A. Khan, M. Saleem. "Role of Micronutrients on Agricultural Soil and Growth of Crops." *J. Chem. Soc. Pak.* **2001**, 23 (3), 144.
33. F. K. Bangash, **S. Alam**, M. Iqbal. "Effect of Temperature on the Adsorption Behavior of Copper onto Carbonaceous Substrate." *J. Chem. Soc. Pak.* **2001**, 23 (4), 1-15.
34. Y. Iqbal, **S. Alam**, M. Ishaq. "Impact of Surface Functional Groups on the Adsorption of Aliphatic Organic Acids from Aqueous Solution on Granular Activated Charcoal." *J. Chem. Soc. Pak.* **2000**, 22 (4), 281-292.
35. Y. Iqbal, **S. Alam**, S. Sabir, M. Ishaq, N. Ahmad. "Investigation of Pollutants in the Industrial Effluents of Hayatabad Industrial Estate (HIE)." *J. Chem. Soc. Pak.* **2000**, 22 (4), 239-244.
36. Y. Iqbal, **S. Alam**, M. Muhammad. "Monitoring of Industrial Effluents." *J. Chem. Soc. Pak.* **1998**, 20 (1), 46-50.

37. Articles Accepted

38. **Sultan Alam**, Azmatullah, M. Khan, M. Sadiq, F. K. Bangash, Removal of Pb (II) from Aqueous Solution by an Efficient Low Cost Biosorbent. *Tenside Surf. Det.* (**Accepted**).
39. M. Sadiq, M. Ilyas, **Sultan Alam**, Investigating the activity of zirconia as a catalyst and a support for noble metals in a green oxidation of cyclohexane, *Tenside Surf. Det.* (**Accepted**).
40. M. Sadiq, M. Ilyas, **Sultan Alam**, Investigating the catalytic activity of monoclinic zirconia; oxidation of benzyl alcohol in aqueous medium at mild conditions *Tenside Surf. Det.* (**Accepted**).
41. **Sultan Alam**, Mashooq Khan, Fazal Mabood, Mohammad Sadiq and Mohammad Nisar "Speciation and Distribution of Nutrients in Rice Grains" *Pakistan Journal of Botany*-(**Accepted**).
42. **Sultan Alam**, Mashooq Khan, Fazal Mabood and Mohammad Nisar "Mineral Profile of *Lycopersicum Esculentum* Mill and its relation with Habitate" *Pakistan Journal of Botany*-(**Accepted**).
43. F. K. Bangash, **Sultan Alam**. "Waste Water Treatment by Activated Carbon of the Wood of *Paulownia tomentosa*: Equilibrium Study." *Chin. J. Chem.* (**Accepted**).
44. F. K. Bangash, **Sultan Alam**, and Hizbullah Khan. "FTIR Analysis of Carbonaceous Substrate of Biotic Precursors". *J. Chem. Soc. Pak.* (**Accepted**).
45. F. K. Bangash, **Sultan Alam**. "Removal of Brilliant Blue R from Aqueous Solution by Activated Carbon Produced from Wood of *Populus Caspica* (Popler)." *J. Chem. Soc. Pak.* (**Accepted**).
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46. Articles Submitted

47. **Sultan Alam**, F. K. Bangash. "Interaction of Acid Yellow 29 with Activated Carbon Prepared from Cellulosic Precursor: 2. Equilibrium." *J. Chem. Soc. Pak.* (MS # XV-190606-5544).
48. F. K. Bangash, **Sultan Alam**, Imtiaz Ahmad "Adsorption of Acid Orange 7 by Activated Carbon Produced from Agricultural Waste: 2. Equilibrium." *J. Chem. Soc. Pak.* (MS #: XV-150706-5562).
49. **Sultan Alam**, F. K. Bangash. "Adsorption of Azo dye on Activated Carbon Prepared from Waste Wood: 1. Kinetics" *J. Chem. Soc. Pak.* (MS # JCSP-130109-8074).
50. M.Sadiq, **Sultan Alam**. "Low Temperature Catalytic Oxidation of Phenol on Zirconia, Zirconia Supported Metals and Metal Oxides in Aqueous Medium" *Tenside Surfactants Detergents*, MS # TS1355.