Curriculum Vitae

NAME	**:**	Adnan Khan
Postal address		Institute of Chemical Sciences University of Peshawar Khyber Pakhtunkhwa Pakistan
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ACADEMIC QUALIFICATIONS

Ph.D

Institute of Chemistry University of Campinas, Sao Paulo-Brazil (UNICAMP)

Ph.D CORSES STUDIED

Fundamentos da Química Inorgânica Estrutural, Tópicos Especiais em Físico-Química

Ph.D. RESEARCH PROJECT

The Potentiality of the Reagent Glycidylmethacrylate Immobilized on Biopolymer Chitosan for Cations removal

SUPERVISING BY

Prof. Dr. Claudio Airoldi Professor in the Institute of Chemistry, University of Campinas, Sao Paulo, Brazil.

M.Phil.

Institute of Chemical Sciences University of Peshawar, Pakistan

M.Phil. COURSES STUDIED

Special topics in Analytical Chemistry, Surface Chemistry, Special topics in Physical Chemistry, Advanced Physical Chemistry, Advance Polymer Chemistry, Pollution Control Technology, Polymer In Controlled Drug Delivery, Petro-chemical Process-1

M.Phil. RESEARCH PROJECT

Spectrophotometric and Thermal Studies of Sugarcane Juice and Gur for Chemicals used in the Process

SUPERVISED BY

Prof. Dr. Imdad Ullah Mohammadzai Professor in the Institute of Chemical Sciences University of Peshawar, Pakistan

CERTIFICATE COURSE I (MAY 23, 2006)

Introduction to Bioinorganic and Medicinal Chemistry of Metals

Dr. Mohammad Mahroof Tahir Associate Professor, Department of Chemistry, St. Cloud State University, Minnesota, USA

CERTIFICATE COURSE II (MAY 30, 2009)

Structural Chemistry

Dr. Antonio Carlos Doriguetto, professor, Federal University of Alfenas, MG, Brazil

CERTIFICATE COURSE III (Feb 08, 2010)

2nd international workshop on Organic Chemistry

Prof. Daniel Rauh (Chemical Genomics Center of the Max Planck Society, Dortmund,Germany), Prof. Jovica D. Badjic (Ohio State University, USA), Prof. Adriano D. Andricopulo (IFSC-USP), Prof. Antonia T. do Amaral (IQ/USP) Prof. Carlos Henrique I. Ramos (IQ/UNICAMP), Prof. Anita J. Marsaioli (IQ/UNICAMP)

M.Sc (ANALYTICAL CHEMISTRY) (2001 -2003)

Institute of Chemical Sciences, University of Peshawar

M.Sc (Part -I1) COURSES STUDIED

Elementary Analytical Chemistry Chromatographic and Electro analytical techniques, Environmental methods of Analysis, Environmental Chemistry, Spectroscopy.

M.Sc (Part -I) COURSES STUDIED

Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry

B.Sc (Chemical Sciences) (1999-2001)

Government Post Graduate College Charsadda University of Peshawar

F.Sc (PRE- MEDICAL) (1997 – 1999)

Peshawar Model Degree College B.I.S.E Peshawar

METRIC (SCIENCE GROUP) (1997)

Government HighSchool Babra Charsadda B.I.S.E Peshawar

ACHIEVEMENT

- Received award of subsistence Allowance to Un-employed 1st Class Graduate from Higher Education Commission of Pakistan under "***Support of Scientific Talent"*** in 2004.
- Received fellowship from TWAS (The academy of sciences for the developing world) and CNPq (Brazilian National Council for Scientific and Technological Development) in 2008 for a period of 4 years.

RESEARCH PROJECT

Worked on project finance by Directorate of Science and Technology KPK Pakistan (DOST) entitled: ***Preparation of chitosan beads, microspheres and nanoparticles for controlled drug release.***

SYMPOSIUM/WORKSHOPS

- Attending and working as a member in organizing committee in a symposium on ***Recent Trends in indigenous chemical research and awareness on data presentation skill*** at Baragali summer Campus University of Peshawar, 2012.
- Participate in workshop on "***Patent drafting & filing***" organized by ORIC, University of Peshawar, June 04, 2015.
- Participate in workshop on ***"Patent & Research Paper Writing"*** (30^{th} & 31^{th} May), 2016, Nathia Gali, KPK, Pakistan.
- Participate in workshop on ***"Entrepreneurship, Innovation and Commercialization"*** (26^{th} & 27^{th} July), 2016, NCEPC, University of Peshawar, KPK, Pakistan.

CONFERENCES

1. **Adnan Khan,** Syed Badshah, Claudio Airoldi, "Two step chitosan modification based on glycidylmethacrylate and triethylenetetramine-synthesis, characterization and cation removal", ***11th international conference on advance materials-ICAM, Rio de Janeiro, 2009.***

2. **Adnan Khan,** Syed Badshah, Claudio Airoldi, "Modificação ambientalmente amigável da quitosana através da reação com dissulfeto de carbono e acrilamida. ***32a. Annual meeting of Brazilian Chemical Society Fortaleza, Brazil,*** **2009.**

3. **Adnan Khan,** Syed Badshah, Claudio Airoldi. "Multistep modification of chitosan based on glycidylmethacrylate and ethylenediamine, thermochemical study of cation removal". ***V Iberoamerican Symposium of Chitin, Santiago, Chile,*** **2010.**

4. **Adnan Khan,** Syed Badshah, Claudio Airoldi. "Diothiocarbamate moiety attached to chitosan for cation removal at the solid/liquid interface", ***XV Brazilian meeting on***

***inorganic chemistry (II Latin American meeting on biological inorganic chemistry Rio de Janeiro, Brazil,* 2010.**

5. **Adnan Khan**, Syed Badshah**,** Claudio Airoldi, "Ancoramento do agente quelantes 1-4,bis(3-aminopropil)piperazina e acetilhidrazina no biopolímero quitosana para remoção de cátions", ***33a. Annual meeting of Brazilian Chemical Society, Água de Lindoia,* Brazil, 2010.**

6. **Adnan Khan**, Syed Badshah**,** Claudio Airoldi, "Modificação da biopolímero quitosana com agente quelante 1,2-etanoditiol para a remoção de cátions da solução aquosa", ***XVIII Chemistry meeting of South Area (SBQSul* 2010*), Curitiba, Brazil.***

7. Syed Badshah, **Adnan Khan,** Vaeudo V. Oliveira, Claudio Airoldi, "Síntese de Sílica Mesoporosa Hexagonal Híbrida Obtida Através doTautômero Iminotiol/Tiouréia", ***33a. Annual meeting of Brazilian Chemical Society, Água de Lindoia*, Brazil, 2010.**

8. Syed Badshah, **Adnan Khan,** Claudio Airoldi, "Síntese Limpa de um Novo Organossilano com Tiocarbamato – Inserção em Filossilicato de Magnésio Sintetizado pelo Processo Sol-gel e Remoção de Chumbo", ***33a. Annual meeting of Brazilian Chemical Society, Água de Lindoia, Brazil*, 2010.**

9. Syed Badshah, **Adnan Khan,** Claudio Airoldi, "Filossilicato de magnésio funcionalizado para a sorção de Pb^{2+}", ***XVIII Chemistry meeting of South Area, (SBQSul* 2010*), Curitiba, Brazil.***

10. **Adnan Khan,** Syed Badshah, Gabriel J. Curti, Claudio Airoldi, "Remoção de chumbo com quitosana quimicamente modificada através de reação baseada em três components", ***34a. Annual meeting of Brazilian Chemical Society, Florianópolis, Brazil*, 2011.**

11. **Adnan Khan,** Syed Badshah, Gabriel J. Curti, Claudio Airoldi, "Síntese de quitosana conteudo dietilenotriamina na sorção de cobre", ***34a. Annual meeting of Brazilian Chemical Society, Florianópolis, Brazil*, 2011.**

12. **Adnan Khan,** Syed Badshah, Claudio Airoldi, "A biopolymer chitosan modification and sorption studies for copper cation", ***II International Conference on Frontier in Polymer Science Lyon, France,* 2011.**

13. Nousheen Nazir, **Adnan Khan,** Sumaira Shah, Siraj ud Din, Nauman Ali, "Environmental Friendly Synthesis of Gold Nanoparticles of Leaf Extract of Sageretia thea (Osbeck) Johnst and its Antioxidant Potential", ***25th National and 13th International Chemistry conference Institute of Chemistry, University of the Punjab, Quaid-i-Azam Campus Lahore, Pakistan October 2014.***

14. Sumaira Shah, Siraj ud Din, **Adnan Khan,** Rehmanullah, Nauman Ali, "Green Eco-friendly Synthesis of Gold Nanoparticles of Root Extract of Sageretia thea (Osbeck) Johnst and its Antioxidant and Larvicidal Bioassays", ***25th National and 13th International Chemistry conference Institute of Chemistry, University of the Punjab, Quaid-i-Azam Campus Lahore, Pakistan October 2014.***

15. Haseena, **Adnan Khan,** Imdad Ullah Muhammadzai, "Comparative Drug Release Study of Epichlorohdrine and Glutaraldehyde Crosslinked Chitosan Microspheres", ***25th National and 13th International Chemistry conference Institute of Chemistry, University of the Punjab, Quaid-i-Azam Campus Lahore, Pakistan October 2014.***

16. Rifat Jamal, Nauman Ali, **Adnan Khan,** Hamayun Khan, "Effect of magnetic nanoparticles/MWCNT on the tensile strength of cellulose acetate polymer", ***5th Spring Research Poster Exhibition, Institute of Chemical Sciences, University of Peshawar, April 12, 2016.***

17. Nousheen Nazirl, Seema, **Adnan Khan,** Nauman Ali, Sumaira Shah, "Green synthesis of Gold nanoparticles using plant (Sageretia thea) stem extract", ***5th Spring Research Poster Exhibition, Institute of Chemical Sciences, University of Peshawar, April 12, 2016.***

18. Hamayun Khan, Abdul Kabir Khalil, **Adnan Khan**, Khalid Saeed and Nauman Ali, "Photocatalytic Degradation of Bromophenol Blue in Aqueous Medium Using Chitosan Conjugated Magnetic Nanoparticles" 27th ***National and 15th International Chemistry conference Department of Chemistry, University of Malakand, Malakand KPK, Pakistan. August 22-25, 2016.***

19. Hamayun Khan, Anwar Baig, Mehtab Faisal, Iqbal Hussain, **Adnan Khan**, Khalid Saeed and Nauman Ali, "Effect of Selected Inorgnic Waste on the Physical and Mechanical Properties of Cementitious Composites" 27th ***National and 15th International Chemistry conference Department of Chemistry, University of Malakand, Malakand KPK, Pakistan. August 22-25, 2016.***

20. Hamayun Khan, Muhammad Kashif, Iqbal Hussain, Asad Ullah, **Adnan Khan**, Khalid Saeed and Nauman Ali, "Chemical Composition, Nutrational Value and Mineral Profile of Seleceted Medicinal Plants of Pakistan" 27th ***National and 15th International Chemistry conference Department of Chemistry, University of Malakand, Malakand KPK, Pakistan. August 22-25, 2016.***

RESEARCH ARTICLES

1. **Adnan Khan,** Syed Badshah, Claudio Airoldi, Biosorption of some toxic metal ions by chitosan modified with glycidylmethacrylate and diethylenetriamine, ***Chem. Eng. J. (2011), 171, 159–166.***
2. **Adnan Khan,** Syed Badshah, Claudio Airoldi, Dithiocarbamated chitosan as a potent biopolymer for toxic cation remediation, ***Colloids and Surfaces B: Biointerfaces, (2011), 87, 88-95.***
3. **Adnan Khan,** Fazal wahid, Imdadullah Mohammadzai, Nauman Ali, Ziarat Shah, Removal of heavy metals by phytoextraction using Salvadora persica. ***Journal of Science and Technology, (2011), 35, 11-22.***
4. Muhammad Rahima, Imdad Ullah, **Adnan Khan**, Mas Rosemal Hakim Mas Haris, Nisar Ahmad, "Spatial Distribution and Risk Assessment of Heavy Metals from Drinking Water in District Shangla", ***Sci. Int (Lahore), 26(4),(2014), 1625-1630.***
5. Sefath Ullah Khan, Farman Ullah Khan, Ihsan Ullah Khanb, Nawshad Muhammad, Syed Badshahd, **Adnan Khan**, Asim Ullah, Amir Sada Khan, Hazrat Bilal, Asma Nasrullah ***Desalination and Water Treatment, (2014) 1–11.***
6. **Adnan Khan,** Sajjad Hussain, Saima Gul, Sabir Khan, Habib ur Rehman, Mohammad Ishaq, Fazal Akbar Jan, Zia Ud Din, Removal of Cr(VI) from aqueous

solution using brick kiln chimney waste as adsorbent. ***Desalination and Water Treatment, 53(2015), 373-381.***

7. **Adnan Khan,** Fazal wahid, Imdadullah Mohammadzai, Nauman Ali, Syed Badshah, Claudio Airoldi, Single step modification of chitosan for toxic cations remediation from aqueous solution, ***Desalination and Water treatment, 2013 56 (2015) 1099–1109.***

8. **Adnan Khan,** Syed Badshah, Claudio Airoldi, Environmental benign modified biodegradable polymer for heavy metal sorption. ***Polymer Bulletin Polym. Bull. (2015) 72, 353–370.***

9. Muhammad Rahim, Imdad Ullah, **Adnan Khan** and Mas Rosemal Hakim Mas Haris, Health Risk from Heavy Metals via Consumption of Food Crops in the Vicinity of District Shangla, ***J. Chem. Soc. Pak., Vol. 38, 2016, 177.***

10. Hamayun Khan, Abdul Kabir Khalil, **Adnan Khan**, Khalid Saeed and Nauman Ali, "Photocatalytic Degradation of Bromophenol Blue in Aqueous Medium Using Chitosan Conjugated Magnetic Nanoparticles" ***Korean J. Chem. Eng., (2016), 33, 2802-2807.***

11. **Adnan Khan**, Sajjad Hussain, Zia Ullah, Saima Gul, Rozina Khattak, Nida Kazmi, Fozia Rehman, Sabir Khan, Khalid Ahmad, Mohammad Imad, "Adsorption Characteristics of Magnesium-Modified Bentonite Clay with Respect to Acid Blue 129 in Aqueous Media" ***Pol. J. Environ. Stud. (2016), 25 , 1-7.***

12. **Adnan Khan**, Fazal Wahid, Imdad Ullah Mohammadzai, Nauman Ali, Ziarat Shah, Removal of toxic metals with activated carbon prepared from Salvadora persica. ***Arabian Chemistry Journal,*** *In Press, Corrected Proof, Available online 31 July*, ***2013***, DOI: ***http://dx.doi.org/10.1016/j.arabjc.2013.07.054.***

AREA OF RESEARCH

Biopolymers – chitosan chemically modification to facilitate the removal of cations, dyes and pesticides from ecosystem. Preparation of chitosan based material for controlled drug release. Preparation of chitosan based membrane for wound healing and burns.