

Dr Amtul Qayoom

(HEC Approved PhD Supervisor)



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Date of Birth 02-06-1972

RESEARCH INTERESTS

Adsorption, biosorption, nanosensors, treatment of water, industrial effluents and lubricating oils, HPLC method validation.

ACADEMIC AND ADMINISTRATIVE RESPONSIBILITIES

- Development and revision of BS and MS industrial Chemistry curriculum
- Preparation of lab manuals for undergraduate BS Industrial Chemistry Programme
- Class Advisor for First Year BS Industrial Chemistry Programme.
- Departmental Focal Person for Turnitin
- Member Industrial Advisory Board
- Member Board of Studies
- Member MS admission Committee
- Reviewer for Arabian Journal of Science, Journal of Chemical Society of Pakistan

SIGNIFICANT PROFESSIONAL SERVICE/ ACADEMIC DISTINCTION

- Member of Technical Evaluation Committee for procurement of Lab Equipment for Department of Chemistry, under Mega Project-IV. Installation Process Completed
- Honored to be judge in Sindh Provincial Science Fair 2015 organized by Intel Pakistan Corporation from 27th to 29th October, 2015.
- Member of QEC Cell, Federal Urdu University of Arts, Science & Technology (FUUAST) in 2013 and 2016 evaluation of Department of Chemistry (FUUAST)
- HEC Approved Supervisor (2015)
- Won First prize in poster competition in 10-days workshop on Systemic Approach to Teaching and Learning Chemistry (SATLC), Nov 19-Nov 29, 2008, held at University of Karachi,

Pakistan.

- Received Travel grant for Oral Presentation at Pure and Applied Chemistry Conference 2008 (PACCON 2008), Jan 30 – Feb 01, 2008, Held at Sofitel Centara Grand Bangkok, Bangkok, Thailand
- Subject expert for review of question book and answer key for NTS testing in 2006

ANALYTICAL SKILLS & TOOLS

- Shimadzu 1600 & 1800 double beam UV–visible spectrophotometer
- Thermo Scientific Nicolet iS10 FT-IR Spectrometer
- Perkin Elmer Analyst 700 Atomic Absorption Spectrophotometer
- Mettler Toledo Karl Fischer Titrator
- Thermo Scientific Orion 950 Titrator
- Shimadzu SPD-20A Liquid Chromatographic System
- Minitab 17
- Endnote, Mandely & Zotero
- Microsoft Windows XP and 10
- Microsoft Office 2003, 2007 and 2010

EDUCATION

University of Karachi, Karachi, Pakistan

2011

Ph.D. in Chemistry

Dissertation: “A Study of Turmeric as a Remedy to Remove Toxic Metals from Aqueous Solutions”

University of Sindh, Jamshoro, Pakistan

M.Sc. in Chemistry

1997

First stood First

Govt. Girls Shah Latif College, Hyderabad, Pakistan

B.Sc. (Pass)

1995

Major: Chemistry

Minor: Functional Mathematics, Zoology

TEACHING EXPERIENCE

NED University of Engineering & Technology Karachi, Pakistan

Associate Professor–Chemistry

July 2017-Present

Supervising undergraduate and postgraduate research projects. Teaching following chemistry courses to MS and BS Industrial Chemistry students

MS Courses: Quality Assurance and Automated Analytical Methods, Research Methodology

BS Courses: Nanotechnology, Inorganic Chemistry, Analytical Chemistry

NED University of Engineering & Technology Karachi, Pakistan

Assistant Professor–Chemistry

Aug 2011-July 2017

Developed proposal and syllabus for BS and MS Industrial Chemistry Programmes. Teaching following chemistry courses to MS, BS and BE students.

MS Courses: Quality Assurance and Automated Methods, Research Methodology

BS Courses: Nanotechnology, Inorganic Chemistry, Analytical Chemistry, **BE Courses:** Applied Chemistry

Lecturer – Applied Chemistry

2006- 2011

Taught Industrial Chemistry Course to under graduate engineering students and conducted lab classes for Applied chemistry and Analytical Chemistry courses and worked as invigilator and internal examiner.

Govt Girls College Shahrah-e-Liaquat Karachi, Pakistan

Lecturer –Chemistry

2002-2005

Taught Analytical and Physical Chemistry courses to intermediate and undergraduate students, conducted lab classes and worked as invigilator and internal examiner.

Falconhouse Grammar School

Science Teacher

1998-2001

Taught Chemistry to O and A Level Students and worked as class teacher.

RELATED EXPERIENCE

Quality Control Analyst

1997 - 1998

Worked as trainee quality control analyst in Raw Material Testing Lab. Conducted various experiments to ensure quality of raw materials used in different drug formulations. Given the task of daily and periodical water testing

RESEARCH PUBLICATIONS

Book:

AmtulQayoom, ArifKazmi, "Turmeric: A Biosorbent for Toxic Metals: A Study of Turmeric Powder as a Remedy to Remove Toxic Metals from aqueous solution" LAP Lambert Academic Publishing, 2012, ISBN3659226955, 9783659226953 (Thesis)

Journal Articles:

1. Farhat Ikram, **Amtul Qayoom**, Muhammad Raza shah, Synthesis of Epicatechin Coated Silver Nanoparticles for Selective Recognition of Gentamicin Sensors and Actuators B: Chemical 257, 897-905, Impact Factor: 5.4
2. Farhat Ikram, **Amtul Qayoom**, Nahid Ikram, Muhammad Raza shah Synergistic effect of epicatechin coated silver nanoparticles on antimicrobial activity of gentamicin against aspergillus niger, Journal of New Technology and Materials , 2017, 7 (2), 100-105. ISI indexed: Yes
3. Nida Naz, Saeeda Nadir Ali, **Amtul Qayoom**, Shumaila Akram, Liquid Chromatographic Method for Simultaneous Determination of Citalopram with NSAIDs in Bulk Drug, Pharmaceutical Formulation and Human Serum. Journal of Chemical Society of Pakistan, 2017, 39 (6), 970-978, Impact Factor: 0.37, HEC Recognized: Yes
4. Saeeda N. Ali, Saeeda, Najma Sultana, **Amtul Qayoom**, & Muhammad Saeed Arayne. "Synthesis and spectrophotometric study of omeprazole charge transfer complexes with bromothymol blue, methyl orange and picric acid." Moroccan Journal of Chemistry (2017) Vol 5(1) 212-226. ISI Indexed: YES, HEC Recognized (Yes)
5. Amtul Qayoom, Syed A. Kazmi, Saeeda N. Ali, Equilibrium Modelling for Adsorption of Aqueous Cd(II) onto Turmeric: Linear versus Nonlinear Regression Analysis. Moroccan Journal of Chemistry, 2017, 5(2) 362-370. ISI Indexed: YES, HEC Recognized (Yes)
6. Shumaila Meraj, **Amtul Qayoom**, Saeeda Nadir Ali, Effective process optimization of indigo rope dyeing: a case study, Journal of New Technology and Materials (JNTM), 2016, 6(2) 33-37. ISI Indexed: YES, HEC Recognized (Yes)
7. **Amtul Qayoom**, Syed A. Kazmi, Saeeda N. Ali, "Kinetic Modelling of aqueous Cu (II) Adsorption onto Turmeric Powder: Effect of Temperature" Journal of Chemical Society

of Pakistan, June 2017, 39(3). Impact Factor: Yes, HEC Recognized:Yes

8. **Amtul Qayoom**, Syed A. Kazmi, Saeeda N. Ali, “Turmeric powder as a natural heavy metal chelating agent: Surface characterization” Pakistan Journal of Scientific & Industrial Research (PJSIR), 2017, 60(1) 1-8: ISI Indexed: YES, HEC Recognized (Yes)
9. Shumaila Akram, Saeeda Nadir Ali, **Amtul Qayoom** and Nida Naz. “High performance liquid chromatographic method for simultaneous determination of alprazolam with antihistamines in bulk drug, pharmaceutical formulation and human serum” Sindh University Research Journal, 2017, 49(1) 3-7, HEC Recognized (Yes)
10. Syed Wajid Hussain, **Amtul Qayoom**, Syed Tariq Ali, and Ghazanfar Hussain, “Improving Different Parameters of Transformer Oil from Pakistan National Refinery Ltd” Science International Journal (LHR), 2016, 28(3) 2533-2536: ISI Indexed: YES, HEC Recognized (Yes)
11. **Amtul Qayoom**, Syed A. Kazmi, Saeeda Nadir Ali, Adsorption of Aqueous Cd (II) ions onto Turmeric Powder: Kinetic Modelling, Science International Journal (LHR), 2016, 28(4) 33777-3782: ISI Indexed: YES, HEC Recognized (Yes)
12. Saeeda Nadir Ali, Najma Sultana, **Amtul Qayoom**, Muhammad Saeed Arayne “Liquid Chromatographic Determination of Alprazolam with Ace Inhibitors in Bulk, respective Pharmaceutical Products and Human Serum, Science International Journal (LHR), 2016, 28(4)3815-3819 : ISI Indexed: YES, HEC Recognized (Yes)
13. **Amtul Qayoom**, S. Arif Kazmi “Effect of Temperature on Equilibrium and Thermodynamic Parameters of Cd (II) Adsorption onto Turmeric Powder” Journal of Chemical Society of Pakistan, 2012, 34(5) 1084-1090: Impact Factor: Yes, HEC Recognized:Yes
14. **Amtul Qayoom**, S. Arif Kazmi “Effect of Temperature on Sequestration of Cu(II) from Aqueous Solution onto Turmeric Powder " Journal of Chemical Society of Pakistan, 2010, 32(5) 582-588, Impact Factor: Yes, HEC Recognized:Yes
15. **Amtul Qayoom**, S. Arif Kazmi and Naushaba Rafiq “Removal of Cu (II) Ions from Aqueous Solutions by Turmeric Powder"Journal of Chemical Society of Pakistan, 2009,31(6), 876-881, Impact Factor: Yes, HEC Recognized:Yes

Articles accepted with minor corrections

16. Saeeda Nadir Ali, Shumaila Akram, **Amtul Qayoom**, Nida Naz and Anjum Ayub. Liquid chromatographic method for simultaneous determination of alprazolam with NSAIDs in bulk drug, pharmaceutical formulation and human serum. Pakistan Journal of Pharmaceutical Sciences, Manuscript No.5786
17. Nida Naz, Saeeda Nadir Ali, **Amtul Qayoom**, Sajid Iqbal, Shumaila Akram” “Rapid and Sensitive Method for Simultaneous Determination of Citalopram with Antihistamines by

Liquid Chromatography” Pakistan Journal of Pharmaceutical Sciences, Impact Factor: Yes, HEC Recognized: Yes

18. Saman Naeem, Saeeda Nadir Ali, **Amtul Qayoom**, Haji Muhammad, Shazia Nisar Charge transfer complexes of Antihistamines: Spectrophotometric determination” Journal of Chemical Society of Pakistan, Impact Factor: Yes, HEC Recognized: Yes

Articles in Process

19. Synthesis of Epicatechin Coated Silver Nanoparticles for the Selective Recognition of Lead (Pb^{2+}) ions in Aqueous Media
20. **Amtul Qayoom**, Yuh-Shan Ho “Bibliometric Analysis of Adsorption Literatures: Contribution from Pakistan”.
21. Abdul Rub Viqar, **Amtul Qayoom**, Ashraf Kamal, Muhammad Talha” Re-Refining of Used Lubricating Oil Using Indigenous Forsterite Ore as Adsorbent”.
22. Muhammad Talha, **Amtul Qayoom**, Ashraf Kamal, Abdul Rub Viqar, Farhat Ikram ” Re-Refining of Used Lubricating Oil Using Indigenous Dolomite Ore as Adsorbent”.

Filed Patents Applications

1. Complete Application entitled “Synthesis of Epicatechin Coated Silver Nanoparticles for the Selective Recognition of Lead (Pb^{2+}) ions in Aqueous Media” filed at 26-04-2017

RESEARCH IN CONJUNCTION WITH MASTERS PROGRAMMES

Research Supervisor:

1. Improving different parameters of transformer oil from Pakistan National Refinery Ltd: Syed Wajid Hussain. MS Batch 2013-14
2. Synthesis of silver nanoparticles for the detection of antimicrobial agents (drugs) in water: Ms. Farhat Ikram. MS Batch 2014-15
3. Kaolinite as an adsorbent for re-refining of waste lube oil: M. Talha. MS Batch 2014-15
4. Re-refining of Used Lubricating Oil using Low Cost Adsorbents: Abdul Rub Vikar. MS Batch 2014-15
5. Green Synthesis and Statistical optimization of experimental parameters for catalytic application of transition metal nanoparticles (TMNPs): Muhammad Bilal Khalid Sahota. MS Batch 2015-2016
6. Green Synthesis of Transition Metal Nano Particles and optimization of catalytic application by Design of Experiment (DOE) Methodology: Talha Siddiqui. MS Batch 2015-2016.

7. Curcumin-Alginate Composites for Application in Medical Textile : Alizay Qureshi. MS Batch 2016-17

Research Co-supervisor :

8. Spectrophotometric determination of antihistamine through charge transfer complexes. Ms. Saman Naeem. MS Batch 2014-15
9. Liquid chromatographic method for simultaneous determination of alprazolam with co-prescribed drugs in bulk and dosage formulations: Shumaila Akram. MS Batch 2014-15.
10. LC-UV method for determination of citalopram with simultaneously prescribed medicines in raw materials and commercial products: Ms. Nida Naz MS. Batch 2014-15.

CONFERENCES AND WORKSHOPS

- HEC Indigneous on Campus Training Programme "Financial Management" held on 16-19 October , 2015
- HEC Indigneous on Campus Training Programme "Organization Interdepartmental Communication" held on 23rd Feb-04 March , 2015
- Presented research work entitled: : Improving different parameters of transformer oil from Pakistan National Refinery Ltd in 1st International Conference on Advanced Materials and Process Engineering-2015 jointly organized by Department of Chemical Engineering and Petroleum Engineering held on 14 & 15-12-2015
- Seminar cum Workshop on "New Trends in Electrochemistry" at H.E.J Research Institute of Chemistry ICCBS at University of Karachi on 12 & 13-05-2015
- Regional Workshop on Chemical Laboratory Safety and Security, June 05 -06-2012 held at International Center of Chemical and Biological Sciences, Universities of Karachi, Pakistan.
- International Training Workshop on Air Pollution Modeling: Fate of Air Pollutants in the Atmosphere, March 19-22, 2012, held at Institute of Environmental Studies, University of Karachi, Pakistan
- National Workshop on Chemical Laboratory Safety and Security in Universities of Pakistan, Feb 22-22, 2011, held at International Center of Chemical and Biological Sciences, Universities of Karachi, Pakistan.
- Oral Presentation at 8th International and 20th National Chemistry Conference (INCC 2010) Islamabad, Feb 15–Feb 17, 2010, held at Quaid-e-Azam University Islamabad, Pakistan

- Workshop on Environmental Chemistry (NCEAC), Jan 19 –21, 2009 at Indus Hotel Hyderabad
- 10-days workshop on Systemic Approach to Teaching and Learning Chemistry (SATLC), Nov 19-Nov 29, 2008, held at University of Karachi, Pakistan(**First prize in poster competition**).
- 11th International Symposium on Natural Product Chemistry, Oct 29-Nov 01, 2008 held at International Center of Chemical and Biological Sciences, Universities of Karachi, Pakistan.
- ELT Seminar 2008 (English for Academic and Occupational Purposes, June 12, 2008, at NED University of Engineering and Technology, Pakistan
- **Oral Presentation at Pure and Applied Chemistry Conference 2008 (PACCON 2008), Jan 30 – Feb 01, 2008, Held at Sofitel Centara Grand Bangkok, Bangkok, Thailand.**
- Oral Presentation in 4th International Symposium on Biotechnology and 1st Pakistan-China-Iran International Conference on Biotechnology, Bioengineering-Biophysical Chemistry, Nov 04- Nov 08, 2007 at Institute of Biotechnology and Genetic Engineering, University of Sindh, Jamshoro.Pakistan
- Poster Presentation at 2nd International Seminar on Analytical Sciences, Sep 06-Sep 08, 2007, held at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro, Pakistan
- Enhancing Teaching Effectiveness, Feb 13-Feb 16, 2006, held at NED University of Engineering and Technology, Pakistan
- National Teachers Training Programme by HEC, Dec 09- Jan 07, 2006, held at DUMHS Karachi
- Professional Skill Development Training by NCE/HEC from Jun 27-Jul 01, 2005, held at SPELT House, Karachi, Pakistan
- In Service Training Workshop on Chromatography and Statistics organized by National Core Group of Chemistry, Dec 26-Jan 8, 2005 held at Center of Excellence in Analytical Chemistry, Jamshoro.
- Workshop on Communication Skills, Jan 06, 2003-Jan 31, 2003, held at Government College for Women, Shahrah-e-Liaquat, Karachi, Pakistan

Languages

- English – speak fluently and read/write with high proficiency
- Urdu – speak fluently and read/write with high proficiency

EXTRACURRICULAR ACTIVITIES

- Accompanied a group of girls students of the NED University as for excursion tour 2007 for

Northern Area, Jun 11-Jun 22, 2007

- Team Manager for NED Volleyball Team (Girls), Intervarsity Volleyball (Girls) Championship, Dec 12-Dec 12, 2007, held at LCWU. Lahore

MEMBERSHIPS

Chemical Society of Pakistan