

Curriculum Vitae

PERSONAL INFORMATION:

Name: Muhammad Idrees

Date of birth: 14th April 1982

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Current Address: Department of chemistry Bacha Khan University Charsadda Khyber Pakhtunkhwa Pakistan

Permanent Address: Village and P/O Badar Banda, District Mardan, Tehsil Katlang, Khyber Pakhtunkhwa Pakistan.

Current position: Working as Assistant Professor in Department of Chemistry Bacha Khan University Charsadda Khyber Pakhtunkhwa (KPK) Pakistan since 10th July 2013 till date.

Total Experience: 6 years; 06 Months and 5 days

ACADEMIC RECORD:

Ph.D: March 2009- February 2013

Thesis title: Material particulado nas interfaces de superficies sólidas: minerais e biologic meio aquoso e/ou micelar.

M.Sc: January 2004- February 2006.

Dissertation title: Catalytic conversion of polypropylene in to valuable hydrocarbons

B.Sc: Government Post graduate college Mardan Khyber Pakhtunkhwa Pakistan. 200-2002.

F.Sc: Aziz Bhatti Shaheed Army College Mardan Cant Khyber Pakhtunkhwa Pakistan. 1998-2000.

S.S.C: Islamia collegiate school university of Peshawar Khyber Pakhtunkhwa Pakistan. 1996-1998.

EXPERTISE:

- Responsible for the maintenance of the Advance Research Laboratory in Department of Chemistry Bacha Khan University Charsadda, KPK, Pakistan.
- Working on Atomic absorption Spectrophotometer (Flame and Furnace) since July 2013 till date.
- Molecular fluorescence (Studying the fluorescence of fluorescent probes in aqueous and
- Micellar system and apply molecular fluorescence to study various phenomena in interfaces
- Life time (Studying the life time of fluorescent probes in micellar system), UV-Visible Spectrophotometer, Ion Chromatography, Study on interfaces between solids and liquids, Semi-empirical models (FITEQL and MINTEQ)
- Have developed new courses for M.Phil and Master level.

COURSES TAUGHT

Data Treatment in Analytical Chemistry, Elementary Analytical Chemistry, Analysis of Special Materials, Advanced Chromatography, Electrochemical Methods, Elementary Analytical Chemistry, Hyphenated Techniques, Analytical Chemistry and Instrumentation.

POSTERS/ORAL PRESENTATIONS/WORKSHOPS:

Idrees, M. Phenanthrene Fluorescence Quenching in Aqueous Sodium Dodecyl Sulphate (SDS) and Determination of Important Metal Ions. 4th International Chemistry Conference on “recent Trends in Chemistry” 7-8 November, 2018, Allama Iqbal Open University Islamabad. (*Oral Presentation*)

Idrees, M.; Bibi, R. Interaction of Phenanthrene with Fe³⁺ and Cu²⁺ in aqueous Micellar System of Sodium Dodecyl Sulfate. Science and Technology Poster Exhibition, 2nd-3rd April 2018. National Centre of excellence in Physical Chemistry university of Peshawar.

Idrees, M. National Workshop on Inventory of Initial and New Persistent Organic Pollutants (POPS) in Pakistan. 25th October, 2017-PC Hotel, Peshawar. (*Workshop*)

Idrees, M.; Orzechowicz, B., Nome, F.; Fiedler, H. D. Interação entre Au³⁺ e Pireno em Micelas de Dodecil Sulfato de Sódio Avaliada por Fluorescência Molecular e Fluorescência

de Raios-X. In: 19 Encontro de química da Região sul. Soc. Brasileira de Química, 2012, Tubarão-SC. (National Conference)

Santos, F. A.; Lima, P. H. E. ; **Idrees, M.**; Nome, F.; Nome, H.D.L.F.; Pires, M. Comparison of the performances of the biosorbents produced from forestry waste and activated carbons on the chromium removal from electroplating effluent. In: 3rd Int Conf on Industrial and Hazardous Waste Management, 2012, Chania, Creta. Proc.. Chania: IWWG, 2012. (International Conference)

Idrees, M.; Silva, M.; Bruch, J.; Zimmermann, L. M.; Silva, A. F.; Fiedler, H. D.; Nome, F. Modelagem de Distribuição de Espécies de Cr(III) na interface entre sílica gel e Soluções Aquosas.

In: 34a Reunião Anual. Sociedade Brasileira de Química, 2011, Florianópolis. Ano Internacional da Química. São Paulo: SBQ, 2011. v. I. p. 65-65. (National Conference)

Pedro, J. A.; **Idrees, M.**; Sobis, F.; Mora, J. R.; Silva, M.; Mendonça, C. O.; Nome, F.; Fiedler, H. D. Deposição de Zn(II) em sílica gel. Estudo na interface sólido-solução aquosa utilizando espectrofluorimetria em meio micelar. In: 34a Reunião Anual. Soc. Brasileira de Química, 2011, Florianópolis. Ano Internacional da Química. São Paulo: SBQ, 2011. v. I. p. 65-65. (National Conference)

Santos, F. A. D.; **Idrees, M.**; Silva, M.; Cappelletti, G. F.; Nome, F.; Fiedler, H. D.; Pires, M. Caracterização de extratos aquosos de biosorventes e seu uso na redução de Cr(VI). In: 34a Reunião Anual Sociedade Brasileira de Química, 2011, Florianópolis. Ano Internacional da Química. São Paulo: SBQ, 2011. v. I. p. 40-40. (National Conference)

Idrees, M.; Silva, M.; Bruch, J.; Santos, F. A.; Nome, F.; Fiedler, H. D.; Pires, M. Preparação de estruturas Biosorventes de Cr³⁺. Quantificação por Espectrofluorimetria em meio micelar. SBQ Sul 2010. (National Conference)

Idrees, M.; Silva, M.; Bruch, J.; Zimmermann, L. M.; Silva, A. F.; Fiedler, H. D.; Nome, F. Interação de Cr(III) e sílica gel: estudo na interface sólido-solução aquosa e determinação fluorimétrica em meio micelar, SBQ Sul 2010. (National Conference)

Mendonça, C. O.; Sobis, F. G.; Bruch, J.; **Idrees, M.**; Silva, A. F.; Zimmermann, L. M.; Fiedler, H. D.; Nome, F. Efeito dos íons Mg (II) e Cr (III) nas propriedades da superfície de □alumina e de sílica gel, SBQ Sul 2010. (National Conference)

Quadros, D. P. C.; Rau, M.; **Idrees, M.**; Borges, D. L. G.; Curtius, A. J. Method development for the determination of Al, Cu, Fe and Mn in biodiesel by HR-CS ET AAS. In: 11th Rio Symposium on Atomic Spectrometry, 2010, Mar del Plata. Book of Abstracts, 2010. (International Conference)

Participated in the 10th Latin American Conference on Physical Organic Chemistry from 11-16th October 2009. (International Conference)

M.Phil/BS Thesis Supervised

1. Phenanthrene Fluorescence Quenching in Aqueous Micellar System and determination of Heavy Metal Ions (*M.Phil*).
2. Ethnopharmacological and Heavy Metals Study of Common Medicinal Plants Collected From District Charsadda, Pakistan (*M.Phil*).
3. Heavy Metals Level and Therapeutic Uses of Common medicinal Plants Collected From District Dir, Pakistan (*M.Phil*).

PUBLICATIONS (Published):

1. Quadros, D. P. C.; Rau, M.; **Idrees, M.**; Chaves, E. S.; Curtius, A. J.; Borges, D. L. G. A simple and fast procedure for the determination of Al, Cu, Fe and Mn in biodiesel using high-resolution continuum source electrothermal atomic absorption spectrometry, **Spectrochimica Acta Part B, Atomic Spectroscopy**, v. 66, p. 373-377, 2011. (IF: 3.086)
2. **Idrees, M.**; Silva, M.; Silva, A. F.; Mendonça, C. O.; Almerindo, G. I.; Nome, R. A.; Atvars, T. D. Z.; Fiedler, H. D.; Nome, F. Interaction of Cr³⁺ with Silica Gel at the Aqueous Interface Using Fluorescence in Sodium Dodecyl Sulfate Micelles and Confocal Fluorescence Microscopy, **J. Phy. Chem. C**, 116, 3517-3523, 2012. (IF: 4.189)
3. Santos, F. A.; **Idrees, M.**; Silva, M.; Lima, P. H. E.; Bueno, N.; Nome, F.; Fiedler, H.; Pires, M. Cr(III) biosorption by forest wastes from Araucaria angustifolia and Pinus elliottii: biosorbent surface characterization and chromium quantification by spectrofluorimetry in micellar médium. **Desalination and Water Treatment**, 51, 5617–5626, 2013. (IF: 0.854)
4. Khan, M. N.; Qayum, A.; Rehman, U.; Gulab, H.; **Idrees, M.** SPECTROPHOTOMETRIC METHOD FOR QUANTITATIVE DETERMINATION OF CEFIXIME IN BULK AND

PHARMACEUTICAL PREPARATIONS USING FERROIN COMPLEX. *Journal of Applied Spectroscopy*. 82, 705–711, 2015. (IF: 0.71)

5. Khan, M. N.; Ahmad, J. Muhammad N. Jan, M.N.; Gulab, H.; Idrees, M. Development and Validation of a New Spectrophotometric Method for the Determination of Cephalexin Monohydrate in Pure Form and Pharmaceutical Formulations. *J. Braz. Chem. Soc.*, 27, 912-918, 2016. (IF:1.399)

6. Mabood, F.; Jabeen, F.; Ahmed, M.; Hussain, J.; Al Mashaykhi, S.A.A.; Al Rubaiey, Z.M.A.; Farooq, S.; Boqué, R.; Ali, L.; Hussain, Z.; Al-Harrasi, A.; Latif khan, A.; Naureen, Z.; **Idrees, M.**; Manzoor, S. Development of new NIR-spectroscopy method combined with multivariate analysis for detection of adulteration in camel milk with goat milk, *Food Chemistry* (2016), doi: <http://dx.doi.org/10.1016/j.foodchem.2016.11.109> (IF: 6.306)

7. Gizelle, A.; Anika, G; Lucas, N.; **Idrees, M.**; René, N.; Haidi, F.; Faruk, N. Reactions at the Solid Liquid Interface: The Chromate Ion Oxidation Equilibria and Mobility During Advanced Oxidation Processes. *Journal of Brazilian Chemical Society*. 28, 1708-1714, 2017. (IF: 1.399)

8. **Idrees, M.**; Rehman, Z. U.; Bibi, S.; Shah, F.; Gulab, H.; Hussain, J.; Ali, L.; Khan, A. L.; Shinwari, Z. K.; Mabood, F. Multivariate and Univariate Statistical Analysis of Heavy Metals Concentrations in Vegetables and Soil Samples—a Case Study from District Charsadda and District Mardan. *Pak. J. Bot.*, 49(3), 1167-1171, 2017. (IF: 0.8)

9. **Idrees, M.**; Jan, F. A.; Ara, A.; Begum, Z. M.; Mahmood, M.; Gulab, H. ANALYSIS AND HUMAN HEALTH RISK FROM SELECTED HEAVY METALS IN WATER, SEDIMENTS AND FRESHWATER FISH (*LABEO ROHITA*, *CYPRINUS CARPIO*, *GLYPTOTHORAX PUNJABENSIS*) COLLECTED FROM THREE RIVERS IN DISTRICT CHARSADDA, KHYBER-PAKHTUNKHWA, PAKISTAN. *Carpathian Journal of Earth and Environmental Sciences*, 2017, Vol. 12, No. 2, p. 641 – 648. (IF: 1.307)

10. **Idrees, M.**; Bibi, R.; Khan, M. N. Phenanthrene Fluorescence Quenching in Aqueous Sodium Dodecyl Sulphate (SDS) and Determination of Important Metal Ions. *Journal of Fluorescence*, 2018, 28, 1251–1254. (IF: 2.093)

11. **Idrees, M.**; Rafiq, S.; Ullah, S.; Jan, F. A.; Khan, M. N.; Mabood, F. Heavy Metals Level of Medicinal Plants Collected from Selected District in Khyber-Pakhtunkhwa, Pakistan. *Farmacia*. 2018, Vol. 66, 5. (IF: 1.607)

12. **Idrees, M.**; Ayaz, M.; Bibi, R.; Khan, M. N. Fluorescence quenching of the probes L-Tryptophan and Indole by anions in aqueous system. **Analytical Sciences**. 36, 183-185, 2019. (IF: 2.049)

13. Khan, M.N.; Bibi, N.; Irum.; **Idrees, M.** A micellar enhanced spectrofluorimetric method for the determination of ciprofloxacin in pure form, Pharmaceutical preparations and Biological samples. **Tenside Surfactants detergents**. 56 (2019) 6. (IF: 1.089)

14. Khan, M.N.; Ali, W.; Shah, Z.; **Idrees, M.**; Gulab, H. A validated spectrofluorimetric method for the determination of Moxifloxacin in its pure form, pharmaceutical preparations, and biological samples. **Analytical Sciences**. 36, 2020. (IF: 2.049)

15. **Idrees, M.**; Jan, F.A.; Hussain, S.; Salam, A. Heavy metals level, health risk assessment associated with contamination of Black Tea; A case study from Khyber Pakhtunkhwa (KPK), Pakistan. **Biological Trace Elements Research**. <https://doi.org/10.1007/s12011-020-02059-1> (IF: 2.639)

16. **Idrees, M.** Analysis and human health risk from selected heavy metals in common instant noodles. **Biological Trace Elements Research**. <https://doi.org/10.1007/s12011-020-02062-6>. (IF: 2.639)

17. Gerola, A. P.; Wanderlind, E. H.; **Idrees, M.**; Sangaletti, P.; Zaramello, L.; Nome, R. A.; Silva, G. T. M.; Quina, F. H.; Tachiya, M.; Nome, F.; Fiedler, H. H. Anion Binding to Surfactant Aggregates: AuCl₄⁻ in Cationic, Anionic and Zwitterionic Micelles. **Journal of Molecular Liquids**, 314, 113607-, 2020. (IF: 5.065)

(Total IF = 39.28 till date 1st October 2020)

Papers Submitted

Adnan, M.; Fiedler, H. D.; Ali, J.; **Idrees, M.**; Pyrene Fluorescence Quenching in Aqueous Sodium Dodecyl Sulphate (SDS) as Applied to Heavy Metals Determination. **Analytical Sciences** (Submitted)

Javed Ali, Muhammad Bilal, Fatima Muslim, Abid Zilli, Rehana Bibi, Syeda Hermain, Fatima Hafsa, Kiran Atta, Mah Rukh, Bibi Haleema, Saira Iram, Nauman ullah, **Muhammad Idrees***. Removal of Cd²⁺ from aqueous solution using raw biomass of *Diospyros Texana* seeds and its activated carbon. **Polish Journal of Environmental Pollution**. (Submitted)

Muhammad Idrees*, Haider Ali, Fazal A. Jan, Shah Suhail, Sami Ullah. *Heavy metals level of medicinal plants collected from district Charsadda, Khyber-Pakhtunkhwa, Pakistan. Journal of Natural Science Foundation.* (Submitted)