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Date of birth

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Jahangir, Taj Muhammad

Institute of Advanced Research Studies in Chemical Sciences (IARSCS)/HTCRL, University of Sindh, Jamshoro - 76080 (Pakistan)

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Pakistani

August 23, 1973

Male

Employment History

2008 – present

Assistant Professor at [IARSCS/HTCRL, University of Sindh \(Pakistan\)](#)

2007 – 2008

Assistant Professor at [Government Degree College, Larkana \(Pakistan\)](#)

2002 – 2007

Lecturer at [Government Degree College, Thatta \(Pakistan\)](#)

1999 – 2001

Research Associate at [Institute of Chemistry, University of Sindh \(Pakistan\)](#)

Education

2004

Ph.D. in Chemistry - [University of Sindh, PK](#)

1996

M.Sc. in Inorganic Chemistry - [University of Sindh, PK](#)

Areas of Expertise

- Environmental Analysis.
- Chemical Process and Unit Operation.
- Thermal Analysis, Spectroscopy and Chromatography.

Instrumental skills

- **Molecular Spectroscopy** - NMR, Mass, UV/Visible, FTIR
- **Thermal Methods** - TG/DTA
- **Separation Methods** - GC/GCMS, HPLC
- **Atomic Spectroscopy** - Atomic Absorption Spectrometer

Computer skills

- **Operating System** - Microsoft Windows, Ubuntu Linux
- **Office Application Software** - Microsoft Office (Word, Excel, PowerPoint), Apache OpenOffice
- **Chemistry Application Software** - CambridgeSoft ChemBioOffice Ultra
- **Statistics Application Software** - IBM SPSS and Minitab
- **Miscellaneous** - Knowledge of Internet Surfing and Email usage plus familiarity with the knowledge based sites

Courses Attended

Mar 02-26, 2009

Lectures from foreign experts visiting Pakistan. Training course on **Modern Mass Spectrometry** organized by National Core Group in Chemistry, held at HEJ Research Institute of Chemistry, University of Karachi

Jan 12 to Feb 19, 2009

Training course on Basic study manual by Lexicon, licensed from Applied scholastics international, USA held at Allama I.I. Qazi library, University of Sindh, Jamshoro

Aug 13-18, 2004

In service training course in Biochemistry held at Institute of Biochemistry, University of Sindh, Jamshoro by HEC, Islamabad

Dec 15-20, 2003	In service training course in chemistry held at Dr. M. A. Kazi Institute of Chemistry, University of Sindh, Jamshoro by HEC, Islamabad
Aug 04-09, 2003	In service training course in Biochemistry held at Institute of Biochemistry, University of Sindh, Jamshoro by HEC, Islamabad
Jul 14 to Aug 02	In service training course Teaching Skills for newly appointed lecturers of Government of Sindh, held at National Institute of Public Administration (NIPA), Karachi

Projects/Reports Completed

Apr-Jun, 2012	Post Flood Monitoring of Water Quality of Manchar Lake , sponsored by World Wide Fund for Nature - Pakistan, Indus for All Programme, Partnership Fund and monitored by Dr. M. Y. Khuhawar, Dr. T. M. Jahangir
May-Nov, 2009	Report on the Study of RBOD Effluent , sponsored by Surface Water Hydrology Project, WAPDA, Lahore and monitored by Dr. M. Y. Khuhawar, Dr. T. M. Jahangir
Jan-Mar, 2008	Baseline Survey Documents/Report at Haleji Lake, Wildlife Sanctuary, District Thatta, Sindh, Pakistan , sponsored by Sindh Wildlife Department, Hyderabad, and monitored by Dr. M. Y. Khuhawar, Dr. T. M. Jahangir

Students Supervised

2015	Muhammad Tariq Mahar - Effect of evaporation ponds of ethanol distillery spent-wash on underground water. "2-8-2010, No.AC-I/DGS/830" (<i>Ph.D., Co-Supervisor</i>)
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Students under Supervision

-	Fateh Muhammad - Evaluation of gamma irradiated cotton lines against Jassid Amrasca Devas-tans (Dist.) and spotted Bollworm Earias Spp. "12-12-2009, DASAR/38884/2009 PhD 2K5, ET-85" (<i>Registered for Ph.D., Co-Supervisor</i>)
-	Asghar Ali Majidano - High Performance Liquid Chromatographic (HPLC) determination of biological active compounds by derivatization. "14.9.2009, No.AC-I/DGS/3556" (<i>Registered for Ph.D., Co-Supervisor</i>)
-	Amir Hayat - HPLC determination of gamma amino butyric acid in selected rice using 2-hydroxynaphthaldehyde as derivatizing agent. "9.12.2010, No. AC-I/DGS/1390" (<i>Registered for Ph.D., Supervisor</i>)
-	Ubed-ur-Rehman Mughal - Evaluation of stability, Quality and Quantity of different pharmaceutical dosage forms of some aminoglycoside antibiotics in various brands available in Pakistan. "16-03-2012, No. DRGS/VC/490" (<i>Registered for Ph.D., Co-Supervisor</i>)
-	Farooque Ali - Determination of Eucalyptus borne allelochemicals and their impacts on indigenous trees of Pai forest, Benazirabad (NawabShah), Sindh, Pakistan. "27-09-2011" (<i>Registered for Ph.D., Co-Supervisor</i>)
-	Jai Kumar Malhi - Investigation of impact of moisture and mineral matter content on burning profiles of Thar coal, Lakhara coal, Sonda coal and their blends using thermogravimetry, XRD and FTIR. "05-03-2014" (<i>Registered for Ph.D., Co-Supervisor</i>)
-	Yaqoob Kapri - Monitoring the quality of underground and surface water of district Thatta. "11-9-2008, No.AC.I/GS/1043" (<i>Registered for M.Phil., Co-Supervisor</i>)
-	Asadullah Soomro - Impact of Granite mining on water and soil in Nagarparkar, district Tharparkar, Sindh. "7-10-2009, No.AC-I/DGS/3686" (<i>Registered for M.Phil., Co-Supervisor</i>)
-	Sabir Hussian - Determination of GABA by 4-(Bromomethyl)-6,7-dimethoxy-coumarin and 4-(Bromomethyl)-7-dimethoxy-coumarin using spectrofluorimetric and HPLC-FLD techniques. "2010" (<i>Registered for M.Phil., Supervisor</i>)
-	Faiz Muhammad - Complexation of 4-Phenyl thiosemicarbazone and 4-phenylsemicarbazone as reagents for metal ions. "2.2.2010, No.AC-I/DGS/1335" (<i>Registered for M.Phil., Supervisor</i>)
-	Laeq Ahmed - Monitoring the quality of surface and groundwater of Hyderabad district. "01-06-2011" (<i>Registered for M.Phil., Co-Supervisor</i>)
-	Jawed Rind - Determination of chemical composition of commercial inorganic fertilizers and agricultural soils of Hyderabad. "01-06-2012" (<i>Registered for M.Phil., Supervisor</i>)
-	Om Parkash - Determination of multiresidue pesticide in drinking water and agricultural runoff of dist. Jamshoro using chromatography techniques and solid phase extraction. "2011" (<i>Registered for M.Phil., Supervisor</i>)

- **Arshad Ali Khaskheli** - Water Chemical Assessment of springs at Gharo and Adjacent areas of district Thatta. "2012" (*Registered for M.Phil., Supervisor*)

Additional information

Annexes

- 1 List of publications

Attachment 1: List of publications

Publications

- [1] A. Hayat, T. M. Jahangir, M. Y. Khuhawar, M. Alamgir, Z. Hussain, F. U. Haq, and S. G. Musharraf, "Hplc determination of gamma amino butyric acid (gaba) and some biogenic amines (bas) in controlled, germinated, and fermented brown rice by pre-column derivatization," *Journal of Cereal Science*, vol. 64, no. 0, pp. 56–62, 2015.
- [2] S. A. Majidano, M. Y. Khuhawar, R. A. Zounr, A. H. Channar, T. M. Jahangir, and M. Mughal, "Determination of amino acids in jams, fruits and pharmaceutical preparations by gas chromatography using trifluoroacetylacetone and ethylchloroformate as derivatizing reagents," *Analytical Methods*, vol. 7, pp. 3148–3156, January 2015.
- [3] A. Hayat, T. M. Jahangir, M. Y. Khuhawar, M. Alamgir, A. J. Siddiqui, and S. G. Musharraf, "Simultaneous hplc determination of gamma amino butyric acid (gaba) and lysine in selected pakistani rice varieties by pre-column derivatization with 2-hydroxynaphthaldehyde," *Journal of Cereal Science*, vol. 60, no. 2, pp. 356–360, 2014.
- [4] T. M. Jahangir, M. Y. Khuhawar, S. M. Leghari, M. T. Mahar, and K. P. Mahar, "Water quality and sediment assessment of manchar lake, sindh, pakistan: After effects of the super flood of 2010," *Arabian Journal of Geosciences*, vol. 0, pp. 1–25, May 2014.
- [5] F. M. Kanher, T. S. Syed, T. M. Jahangir, M. Y. Khuhawar, and G. H. Abro, "Evaluation of gamma irradiation on cotton genotypes fruiting parts and infestation of spotted bollworm, *earias vittella* (fab.)," *Sindh University Research Journal (Science Series)*, vol. 46, no. 2, pp. 231–238, 2014.
- [6] M. T. Mahar, M. Y. Khuhawar, M. A. Baloch, T. M. Jahangir, and S. A. Majidano, "Determination of amino acids in industrial effluents contaminated soil," *Journal of the Chemical Society of Pakistan*, vol. 36, no. 5, pp. 965–975, 2014.
- [7] A. N. Soomro, S. A. Balouch, T. M. Jahangir, W. A. Baloch, K. H. Lashari, W. M. Achakzai, and T. J. Ursani, "Fish, plankton biodiversity and physico-chemical parameters of five lakes of deh-akro ii," *Sindh University Research Journal (Science Series)*, vol. 46, no. 2, pp. 111–116, 2014.
- [8] T. M. Jahangir, M. Y. Khuhawar, S. M. Leghari, M. T. Mahar, and A. A. Khaskheli, "Chemical assessment of natural springs of sindh, pakistan," *Canadian Journal of Pure and Applied Sciences*, vol. 7, no. 2, pp. 2431–2449, 2013.
- [9] T. M. Jahangir, M. Y. Khuhawar, S. M. Leghari, M. A. Mahar, and M. S. Baluch, "Water quality assessment of haleji lake (sindh, pakistan) a Ramsar recognized site," *Journal of the Chemical Society of Pakistan*, vol. 35, no. 3, pp. 1004–1016, 2013.
- [10] M. T. Mahar, M. Y. Khuhawar, T. M. Jahangir, and M. A. Baloch, "Heavy metal analysis in groundwater in the vicinity of distillery spent wash evaporation ponds," *Journal of Chemistry and Chemical Engineering*, vol. 7, no. 8, pp. 779–790, 2013.
- [11] M. T. Mahar, M. Y. Khuhawar, T. M. Jahangir, and M. A. Baloch, "Health risk assessment of heavy metals in groundwater: The effect of evaporation ponds of distillery spent wash," *Journal of Environmental Science and Engineering*, vol. 2, no. 3A, pp. 166–175, 2013.
- [12] M. A. Mirza, A. J. Kandhro, M. Y. Khuhawar, R. Arain, M. A. Choudhary, and T. M. Jahangir, "Analysis of glyoxal, methylglyoxal and dimethylglyoxal in beverages and edible products by mekc using meso-stilbenediamine as derivatizing reagent," *Journal of the Chemical Society of Pakistan*, vol. 35, no. 1, pp. 52–57, 2013.
- [13] M. A. Mirza, M. Y. Khuhawar, R. Arain, M. A. Choudhary, A. J. Kandhro, and T. M. Jahangir, "Micellar electrokinetic chromatographic separation/determination of uranium, iron, copper and nickel from environmental ore samples using bis(salicylaldehyde)meso-stilbenediimine as chelating reagent," *Asian Journal of Chemistry*, vol. 25, no. 7, pp. 3719–3724, 2013.
- [14] R. A. Zounr, M. Y. Khuhawar, and T. M. Jahangir, "Gas chromatographic determination of guanidino compounds using hexafluoroacetylacetone and ethyl chloroformate as derivatizing reagents," *Chromatographia*, vol. 76, pp. 85–90, January 2013.
- [15] M. Y. Khuhawar, M. A. Mirza, and T. M. Jahangir, *Crude Oil Emulsions - Composition Stability and Characterization*, ch. Determination of Metal Ions in Crude Oils, pp. 121–144. InTech, 2012.
- [16] M. T. Mahar, M. Y. Khuhawar, M. A. Baloch, and T. M. Jahangir, "Effects of spent wash of ethanol industry on groundwater: A case study of rahim yar khan district, pakistan," *Journal of Environmental Science and Water Resources*, vol. 1, no. 4, pp. 85–94, 2012.
- [17] M. Y. Khuhawar, M. A. Baloch, T. M. Jahangir, M. T. Mahar, and S. A. Majidano, "Impacts of evaporation ponds of ethanol distillery spent wash on underground water," *Pakistan Journal of Chemistry*, vol. 1, no. 1, pp. 10–18, 2011.
- [18] M. A. Mirza, M. A. Choudhary, A. J. Kandhro, M. Y. Khuhawar, R. Arain, and T. M. Jahangir, "Indirect determination of catecholamines in pharmaceutical preparations by flame atomic absorption spectrophotometry," *Asian Journal of Chemistry*, vol. 23, no. 12, pp. 5419–5421, 2011.
- [19] S. M. Leghari, M. A. Mahar, M. Y. Khuhawar, and T. M. Jahangir, "Water quality assessment and flora study of desert thar and nagarparkar, district tharparkar, sindh, pakistan," *Sindh University Research Journal (Science Series)*, vol. 39, no. 1, pp. 49–56, 2007.

- [20] S. M. Leghari, M. A. Mahar, M. Y. Khuhawar, and T. M. Jahangir, "Water quality and floral assessment of pat desert of sanghar and khairpur districts, sindh, pakistan," *International Journal of Phycology and Phycochemistry*, vol. 3, pp. 65–70, 2007.
- [21] S. M. Leghari, M. A. Mahar, M. Y. Khuhawar, and T. M. Jahangir, "Limnological study of hanna lake and urak spring of quetta, balochistan, pakistan," *International Journal of Phycology and Phycochemistry*, vol. 2, no. 1, pp. 33–38, 2006.
- [22] S. M. Leghari, A. D. Rajper, M. Y. Khuhawar, T. M. Jahangir, and A. Leghari, "Limnological study of lakha pir hot spring, district kachi, balochistan, pakistan," *Sindh University Research Journal (Science Series)*, vol. 12, pp. 7–16, 2005.
- [23] S. M. Leghari, M. Y. Khuhawar, T. M. Jahangir, and A. Leghari, "Some studies on toung natural spring of thana bula khan, district dadu, sindh, pakistan," *International Journal of Phycology and Phycochemistry*, vol. 1, pp. 167–172, 2005.
- [24] S. M. Leghari, M. Y. Khuhawar, T. M. Jahangir, and A. Leghari, "Limnological study of natural springs at gharo creek, district thatta, sindh, pakistan," *International Journal of Phycology and Phycochemistry*, vol. 1, pp. 37–42, 2005.
- [25] A. Leghari, S. N. Chandio, M. Y. Khuhawar, T. M. Jahangir, and S. M. Leghari, "Physicochemical and budgeting study of waste water from latifabad and qasimabad tulkas of hyderabad, sindh, pakistan," *Sindh University Research Journal (Science Series)*, vol. 37, no. 2, pp. 25–32, 2005.
- [26] S. M. Leghari, M. Y. Khuhawar, T. M. Jahangir, and A. Leghari, "Limnological study of pir bukhari (karsaz) and mangopir warm springs, karachi, sindh, pakistan," *International Journal of Phycology and Phycochemistry*, vol. 1, pp. 151–158, 2005.
- [27] M. Y. Khuhawar, S. N. Lanjwani, and T. M. Jahangir, "Liquid chromatography of uranium complexes of tetradentate schiff bases," *Analytical Sciences*, vol. 20, no. 8, pp. 1193–1197, 2004.
- [28] A. Laghari, S. N. Chandio, M. Y. Khuhawar, T. M. Jahangir, and S. M. Laghari, "Effect of wastewater on the quality of ground water from southern parts of hyderabad city," *Journal of Biological Sciences*, vol. 4, no. 3, pp. 314–316, 2004.
- [29] A. Laghari, S. N. Chandio, M. Y. Khuhawar, T. M. Jahangir, and S. M. Laghari, "Physico-chemical study and budgeting of wastewater from hyderabad city limits," *Journal of Biological Sciences*, vol. 4, no. 3, pp. 317–322, 2004.
- [30] S. M. Leghari, T. M. Jahangir, M. Y. Khuhawar, and A. Leghari, "Biological and chemical investigations of natural springs of rannikot, district dadu, sindh, pakistan," in *Proceedings of Pakistan Congress of Zoology* (D. M. Ahmad and D. A. Shakoori, eds.), vol. 24, pp. 37–50, Proceedings of Pakistan Congress of Zoology, 2004.
- [31] S. M. Leghari, T. M. Jahangir, M. Y. Khuhawar, and A. Leghari, "Assessment of water quality and biological indicators in the feeding and spinal drains of the left bank outfall drain (lbod), sindh, pakistan," in *Proceedings of Pakistan Congress of Zoology* (D. M. Ahmad and D. A. Shakoori, eds.), vol. 23, pp. 223–231, Proceedings of Pakistan Congress of Zoology, 2003.
- [32] S. M. Leghari, M. A. Mahar, T. M. Jahangir, A. D. Rajper, and M. Y. Khuhawar, "Physico-chemical and biological study of rain water pools, lonikot, thana bola khan and kohistan region of district dadu, sindh, pakistan," in *Proceedings of Pakistan Congress of Zoology* (D. M. Ahmad and D. A. Shakoori, eds.), vol. 23, pp. 13–24, Proceedings of Pakistan Congress of Zoology, 2003.
- [33] S. M. Leghari, T. M. Jahangir, M. Y. Khuhawar, and A. Leghari, "Physico-chemical and biological study of ali murad barijo and karogar springs of thana bula khan, district dadu, sindh, pakistan," *Online Journal of Biological Science*, vol. 2, no. 1, pp. 35–38, 2002.
- [34] S. M. Leghari, T. M. Jahangir, M. Y. Khuhawar, and A. Leghari, "Water quality and biological assessment of ghazi shah and kai springs of district dadu, sindh, pakistan," *Online Journal of Biological Science*, vol. 2, no. 1, pp. 39–42, 2002.
- [35] S. M. Leghari, T. M. Jahangir, M. Y. Khuhawar, and A. Leghari, "Study on the natural springs at clifton, karachi, sindh, pakistan," in *Proceedings of Pakistan Congress of Zoology* (D. M. Ahmad and D. A. Shakoori, eds.), vol. 22, pp. 125–131, Proceedings of Pakistan Congress of Zoology, 2002.
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- [39] S. M. Leghari, T. M. Jahangir, M. Y. Khuhawar, and A. Leghari, "Physico-chemical and biological studies of eothermal sulphur and chliarothermal springs of lakhi shah saddar (district dadu) sindh, pakistan," *Online Journal of Biological Science*, vol. 1, no. 10, pp. 929–934, 2001.
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- [42] M. Y. Khuhawar, S. M. Leghari, T. M. Jahangir, A. Leghari, and G. M. Mastoi, "Chemical assessment of water quality of rbod project from shahdadkot-mirkhan drains to kotri barrage," in *Proceedings Vol.II and Recommendations, National Seminar on Drainage in Pakistan, Institute of Irrigation and Drainage Engineering, Mehran University of Engineering and Technology, Jamshoro, Sindh*, pp. 297–300, In Proceedings Vol.II and Recommendations, National Seminar on Drainage in Pakistan, Institute of Irrigation and Drainage Engineering, Mehran University of Engineering and Technology, Jamshoro, Sindh, August 2000.
- [43] M. Y. Khuhawar, S. M. Leghari, R. B. Bozdar, G. M. Mastoi, and T. M. Jahangir, "Variation in water quality assessment from kotri barrage to arabian sea," in *Proceedings Vol.II and Recommendations, National Seminar on Drainage in Pakistan, Institute of Irrigation and Drainage Engineering, Mehran University of Engineering and Technology, Jamshoro, Sindh*, pp. 211–214, In Proceedings Vol.II and Recommendations, National Seminar on Drainage in Pakistan, Institute of Irrigation and Drainage Engineering, Mehran University of Engineering and Technology, Jamshoro, Sindh, August 2000.
- [44] S. M. Leghari, S. I. H. Jafri, M. A. Mahar, K. H. Lashari, S. S. Ali, T. M. Jahangir, and M. Y. Khuhawar, "Limnological study of sonharo, mehro pateji and cholari lakes of district badin, sindh, pakistan," *Pakistan Journal of Biological Sciences (PJBS)*, vol. 3, no. 11, pp. 1904–1909, 2000.
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- [49] T. M. Jahangir, M. Y. Khuhawar, and G. M. Mastoi, "Chemical assessment of water quality at kpod and tidal link of lbod project," in *Proceed. Symp. Left Bank Outfall Drain Project and its Impacts*, pp. 53–58, Proceed. Symp. Left Bank Outfall Drain Project and its Impacts, November 29 1997.