

CURRICULUM VITAE

DR. KOMAL RIZWAN

Assistant Professor

Deputy Director QEC & ORIC

Institute: Department of Chemistry, University of Sahiwal, Sahiwal Pakistan

Education: **PhD. Chemistry** from Government College University Faisalabad & University of Pennsylvania, Philadelphia, USA

Positions:

- Assistant Professor, Department of Chemistry, University of Sahiwal, Sahiwal from 6-1-2020 to Date.
- Assistant Professor, Department of Chemistry, Govt. College women University Faisalabad from 2018 to 2019 (Visiting)
- Assistant Professor, Department of Chemistry, Govt. College women University Faisalabad from 2017- 2018 (IPFP)

Research projects

- HEC start up research Project (2017) entitled “Synthesis of novel thiazole based derivatives their characterization and biological activities” (0.5 million **Completed as PI**).
- Phytochemical and biological analysis of *Zizyphus oxyphilla* and *Jatropha integerrima* Funded by Higher Education of Pakistan (2.2 m), Research associate 2012-2015.
- Synthesis of Thiophene Based Heterocyclics *via* Pd and Cu Catalyzed Reactions and their Biological Activities” (Phd research)
- Phytochemical and Biological Studies of *Agave attenuata*. (Mphil research)
- Determination of Atrazine (pesticide) residues in Mango at different stages of growth (Msc research)

Scholarships and Awards

- Research Productivity incentive award for the year 2018-2019 from Government college women university Faisalabad (Cash prize 20,000).
- Indigenous Scholarship from Higher Education Commission Pakistan (2011-2015).
- International research support initiative programme (IRSIP) from Higher Education Commission Pakistan (2015), University of Pennsylvania, Philadelphia, United States of America.
- Awarded with a laptop in shahbaz sharif youth initiative programme on merit.

Research Interests:

New Synthetic Methodology for Organic Materials | Homogeneous Catalysis | Photoredox catalysis | Medicinal Chemistry | Natural Products Chemistry | Computational chemistry.

PUBLICATIONS:

- Khan, S. A., Rizwan, K., Shahid, S., Noamaan, M. A., Rasheed, T., Amjad, H. (2020). Synthesis, DFT, computational exploration of chemical reactivity, molecular docking studies of novel formazan metal complexes and their biological applications. *Applied Organometallic Chemistry*, e544 (IF= 3.259).
- Rasheed, T., Nabeel, F., Shafi, S., Bilal, M., Rizwan, K. (2019). Block copolymer self-assembly mediated aggregation induced emission for selective recognition of picric acid. *Journal of Molecular Liquids*, 296, 111966 (IF= 4.561).
- Rizwan, K., Khan, S. A., Ahmad, I., Rasool, N., Ibrahim, M., Zubair, M., Jaafar, H. Z., Manea, R. (2019). A Comprehensive Review on Chemical and Pharmacological Potential of *Viola betonicifolia*: A Plant with Multiple Benefits. *Molecules*, 24(17), 3138 (IF= 3.060).
- Ahmad, G., Rasool, N., Rizwan, K., Imran, I., Zahoor, A. F., Zubair, M., Sadiq, A., Rashid, U. (2019). Synthesis, *In-Vitro* Cholinesterase Inhibition, *In-Vivo* Anticonvulsant Activity and *In-Silico* Exploration of *N*-(4-Methylpyridin-2-yl)thiophene-2-carboxamide Analogs. *Bioorganic chemistry*, 92, 103216 (IF= 3.926)
- Rasheed, T., Nabeel, F., Adeel, M., Rizwan, K., Bilal, M., Iqbal, H. M. (2019). Carbon nanotubes-based cues: A pathway to future sensing and detection of hazardous pollutants. *Journal of Molecular Liquids*, 292, 11425 (IF= 4.561).
- Khan, S. A., Arshad, Z., Shahid, S., Arshad, I., Rizwan, K., Sher, M., Fatima, U. (2019). Synthesis of TiO₂/Graphene oxide nanocomposites for their enhanced photocatalytic activity against methylene blue dye and ciprofloxacin. *Composites Part B: Engineering*, 175, 107120 (IF= 6.864).
- Ahmad, G., Rasool, N., Rizwan, K., Altaf, A. A., Rashid, U., Hussein, M. Z., Mahmood, T., Ayub, K. (2019). Role of Pyridine Nitrogen in Palladium-Catalyzed Imine Hydrolysis: A Case Study of (E)-1-(3-bromothiophen-2-yl)-N-(4-methylpyridin-2-yl)methanimine. *Molecules*, 24(14), 2609 (IF= 3.060).
- Israr, H., Rasool, N., Rizwan, K., Hashmi, M. A., Mahmood, T., Rashid, U., Hussein, M. Z., Akhtar, M. N. (2019). Synthesis and Reactivities of Triphenyl Acetamide Analogs for Potential Nonlinear Optical Material Uses. *Symmetry*, 11: (5), 622 (IF= 1.256).
- Khan, S. A., Shahid, S., Kanwal, S., Rizwan, K., Mahmood, T., Ayub, K. (2019). Synthesis of novel metal complexes of 2-((phenyl (2-(4-sulfophenyl) hydrazono) methyl) diazenyl) benzoic acid formazan dyes: Characterization, antimicrobial and optical properties studies on leather. *Journal of Molecular Structure*, 1175: 73-89 (IF= 2.011).
- Ashraf, I., Zubair, M., Rizwan, K., Rasool, N., Jamil, M., Khan, S. A., Tareen, R. B., Ahmad, V. U., Mahmood, A., Riaz, M., Haq, M. Z., Jaafar, H. Z. (2018). Chemical composition, Antioxidant and

antimicrobial potential of Essential Oils from Different Parts of *Daphne mucronata* Royle. *Chemistry central journal*, 12: 135, 1-8 (IF= 2.284).

- Mahmood, N., Rasool, N., Ikram, H. M., Hashmi, M. A., Mahmood, T., Zubair, M., Ahmad, G., Rizwan, K., Rashid, T., Rashid, U. (2018). Significant non-linear optical response of 3,4-biaryl-2,5 dichlorothiophene derivatives synthesized via Suzuki Cross-Coupling reaction. *Symmetry*, 10(12), 766 (IF= 1.256).
- Zubair, M., Rizwan, K., Rasool, N., Tareen, R. B. (2018). Isolation of secondary metabolites from *Ziziphus oxyphylla* Fruit. *International Journal of Chemical and Biochemical Sciences*, 13:27-30 (IF= 0)
- Khan, S. A., Kanwal, S., Rizwan, K., Shahid, S., (2018). Enhanced antimicrobial, antioxidant, in vivo antitumor and in vitro anticancer effects against breast cancer cell line by green synthesized undoped SnO₂ and Co-doped SnO₂ nanoparticles from *Clerodendrum inerme*. *Microbial Pathogenesis*, 125:366-384 (IF= 2.332).
- Farooq, H., Rasool, N., Ansari, M. T., Rizwan, K., Iqbal, S, Mahmood, T., Israr, H., Ayub, K., Rasheed, T., Zareen, S., Akhtar, M. N. (2018). Selective arylation of phenol protected propyl bromide via Pd-catalysed Suzuki coupling reaction: synthesis, mechanistic studies by DFT calculations and Their Pharmacological Aspects" *Acta Poloniae Pharmaceutica - Drug Research*, 75 (4), 911-919 (IF= 0.531).
- Khalid, A., Shahid, S., Khan, S. A., Kanwal, S., Yaqoob, A., Rasool, Z. G., Rizwan, K. (2018). Antioxidant activity and hepatoprotective effect of *Cichorium intybus* (Kasni) seed extract against carbon tetrachloride-induced liver toxicity in rats. *Tropical Journal of Pharmaceutical Research*, 17 (8), 1531-1538. (IF= 0.444).
- Rizwan, K., Rasool, N., Rehman, R., Mahmood, T., Ayub, K., Rasheed, T., Ahmad, G., Malik, A., Khan, S. A., Akhtar, M. N., Alitheen, N. B., Aziz, M. N. M. (2018) Facile synthesis of N-(4-bromophenyl)-1-(3-bromothiophen-2-yl)methanimine derivatives via Suzuki cross-coupling reaction: their characterization and DFT studies. *Chemistry central journal* .12: 84, 1-9 (IF= 2.284).
- Rizwan, K., Zubair, M., Rasool, N., Mahmood, T., Ayub, K., Alitheen, N. B., Aziz, M. N. B., Akhtar, M. N., Nasim, F. H., Bukhary, S. M., Ahmad, V. U., Rani, M. (2018). Palladium (0) Catalyzed Suzuki Cross-Coupling reaction of 2,5-dibromo-3- methylthiophene: Selectivity, Characterization, DFT Studies and their Biological Evaluations. *Chemistry Central Journal*, 12 (1), 49 (IF= 2.552).
- Zubair, M., Rizwan, K., Rashid, U., Saeed, R., Saeed, A. A., Rasool, N., & Riaz, M. (2017). GC/MS profiling, in vitro antioxidant, antimicrobial and haemolytic activities of *Smilax macrophylla* leaves. *Arabian Journal of Chemistry*, 10, S1460–S1468 (IF= 3.725)
- Zubair, M., Gulzar, A., Rasool, N., Noreen, M., Rizwan, K., Gul, Y., Rasool, M. F., Gavris, C. (2017). Synthesis of functionalized 3-Bromo-2,5-Diarylthiophene and 2,3,5-triarylthiophene derivatives via Suzuki cross coupling reaction as efficient free radical scavenger. *Oxidation Communication*, 40 (2), 713-721 (IF= 0.451).

- Heitz, D. R., Rizwan, K., and Molander G. A. (2016). Visible-Light-Mediated Alkenylation, Allylation, and Cyanation of Potassium Alkyltrifluoroborates with Organic Photoredox Catalysts. *Journal of organic chemistry*, 81 (16), 7308-7313(IF=4.721).
- Rizwan, K., Zubair, M., Rasool, N., Mahmood, A., Ercisli, S., Tareen, R.B., Zia-ul-Haq, M. (2016). Compositional studies and antioxidant potential of fruit of *Zizyphus oxyphylla* EDGEW. *Oxidation Communications*, 39 (2), 1309-1322(IF= 0.451).
- Asad, A., Zubair, M., Rasool, N., & Rizwan, K. (2015). Antimicrobial Potential of Glycyrrhiza glabra. *Journal of Drug Design and Medicinal Chemistry*, 1(2), 17-20.
- Rizwan, K., Karakaya, I., Heitz, D., Zubair, M., Rasool, N., & Molander, G. A. (2015). Copper-mediated N-arylation of methyl 2-aminothiophene-3-carboxylate with organoboron reagents. *Tetrahedron letters*, 56(49), 6839-6842 (IF=2.379).
- Saleem, A., Nasir, S., Rasool, N., Bokhari, T. H., Rizwan, K., Shahid, M., Abbas, M., & Zubair, M. (2015). In Vitro Antimicrobial and Haemolytic Studies of Kalanchoe pinnata and Callistemon viminalis. *International Journal of Chemical and Biochemical Sciences* 7, 29-34.
- Shahzad, F., Zubair, M., Rizwan, K., Rasool, N., Tareen, R. B., Riaz, M., Ercisli, S., Altaf, A., & Zia-Ul-Haq, M. (2015). Evaluation of Biological Activities and GC-MS analysis of Zygophyllum eurypterum *Oxidation Communications*, 38(4A), 1978-1994 (IF= 0.451).
- Shani, K., Zubair, M., Rizwan, K., Rasool, N., Ercisli, S., Mahmood, A., Zia-Ul-Haq, M., Dima, L., & Pascu, A. (2015). Compositional studies of oil, antioxidant capacity oil and extracts of *Diarthron vesiculosum*. *Oxidation communication*, 38(3), 1252-1264 (IF= 0.451).
- Ashraf, S. N., Zubair, M., Rizwan, K., Tareen, R. B., Rasool, N., Zia-Ul-Haq, M., & Ercisli, S. (2014). Compositional studies and Biological activities of Perovskia abrotanoides Kar. oils. *Biological research*, 47(1), 1 (IF=1.480).
- Imran, M., Rasool, N., Rizwan, K., Zubair, M., Riaz, M., Zia-Ul-Haq, M., Rana, U. A., Nafady, A., & Jaafar, H. Z. (2014). Chemical composition and Biological studies of Ficus benjamina. *Chemistry Central Journal*, 8(1), 12 (IF= 2.187).
- Kashif, M., Rizwan, K., Khan, M. A., Younis, A., Aslam, W., Arfan, M., Anwar, S. A. S. F., Mahmood, Z., Rashid, U., & Igwe, O. U. (2014). Efficacy of macro and micro-nutrients as foliar application on growth and yield of Dahlia hybrida L.(Fresco). *Int. J. Chem. Bioch. Sci*, 5, 6-10.
- Rizwan, K., Zubair, M., Rasool, N., Ali, S., Zahoor, A. F., Rana, U. A., Khan, S. U.-D., Shahid, M., Zia-Ul-Haq, M., & Jaafar, H. Z. (2014). Regioselective synthesis of 2-(bromomethyl)-5-aryl-thiophene derivatives via palladium (0) catalyzed suzuki cross-coupling reactions: as antithrombotic and haemolytically active molecules. *Chemistry Central Journal*, 8(1), 74 (IF= 2.187).
- Anwar, S., Zubair, M., Rashid, U., Rizwan, K., Shahid, M., Bukhari, I. H., Jamil, M., Ahmad, V. U., & Rasool, N. (2013). Antimicrobial Potential of Methanolic Extract and Various Fractions of Jatropha curcas Roots. *Asian Journal of Chemistry*, 25(13), 7477(IF= 0.355).

- Jamil, M., Zubair, M., Farid, M. A., Altaf, A. A., Rasool, N., Bukhari, I. H., Rizwan, K., & Ahmad, V. U. (2013a). Synthesis, Characterization and Antibacterial Activity of Some Novel Symmetrical N-3, N-3'-Bis (disubstituted)isophthalyl-bis (thioureas) and Their Cu (II) and Ni (II) Complexes. *Journal of the Chemical Society of Pakistan*, 35(3), 834-839 (IF= 1.360).
- Jamil, M., Zubair, M., Rasool, N., Altaf, A. A., Rizwan, K., Hafeez, S., Bukhari, I. H., & Langer, P. (2013b). Synthesis, Characterization, Antibacterial and Urease Inhibition Studies of Some Novel Symmetrical N3, N3'-bis-(disubstituted) isophthalyl-bis-(thioureas). *Asian Journal of Chemistry*, 25(10), 5328(IF=0.355).
- Khan, S. A., Rasool, N., Riaz, M., Nadeem, R., Rashid, U., Rizwan, K., Zubair, M., Bukhari, I. H., & Gulzar, T. (2013). Evaluation of Antioxidant and Cytotoxicity Studies of Clerodendrum inerme. *Asian Journal of Chemistry*, 25(13), 7457 (IF= 0.355).
- Rasool, N., Afzal, S., Riaz, M., Rashid, U., Rizwan, K., Zubair, M., Ali, S., & Shahid, M. (2013a). Evaluation of antioxidant activity, cytotoxic studies and GC-MS profiling of matthiola incana (stock flower). *Legume Research-An International Journal*, 36(1), 21-32 (IF=0.138).
- Rasool, N., Tehseen, H., Riaz, M., Rizwan, K., Zubair, M., Mahmood, Y., Iqbal, M., & Bukhari, I. H. (2013b). Cytotoxicity studies and antioxidant potential of Acacia nilotica roots. *Int J Chem Biochem Sci*, 3, 34-41.
- Riaz, M., Rasool, N., Bukhari, I., Zubair, M., Shahid, M., Bokhari, T., Gull, Y., Rizwan, K., Iqbal, M., & Zia-ul-Haq, M. (2013). Antioxidant studies using sunflower oil as oxidative substrate and DNA protective assay by *Antirrhinum majus*. *Oxidation communication*, 36(2), 542-552 (IF=0.507).
- Tariq, H., Zubair, M., Rizwan, K., Hafeez, S., Rasool, N., Bukhari, I. H., Murtaza, G., Riaz, M., & Ahmad, V. U. (2013). An Evaluation of Haemolytic and Antioxidant Potential of Kalanchoe pinnata Leaves. *Asian Journal of Chemistry*, 25(13), 7310 (IF=0.355).
- Zia-Ul-Haq, M., Stanković, M. S., Rizwan, K., & Feo, V. D. (2013). *Grewia asiatica* L., a food plant with multiple uses. *Molecules*, 18(3), 2663-2682 (Review article). (IF=2.095).
- Zubair, M., Bibi, Z., Rizwan, K., Rasool, N., Zahoor, A. F., & Riaz, M. (2013a). In Vitro Antimicrobial and Haemolytic Studies of Bambusa arundinaceae leaves. *Journal of Applied Pharmaceutical Science*, 3(4), 111.
- Zubair, M., Hassan, S., Rizwan, K., Rasool, N., Riaz, M., Zia-Ul-Haq, M., & De Feo, V. (2013b). Antioxidant potential and oil composition of Callistemon viminalis leaves. *The Scientific World Journal*, 2013 (IF= 1.219).
- Aslam, F., Riaz, M., Zubair, M., Rizwan, K., Abbas, M., Bukhari, T. H., & Bukhari, I. H. (2012). Antioxidant, haemolytic activities and GC-MS profiling of Carissa carandas roots. *International Journal of Phytomedicine*, 3(4), 567-578.
- Bari, M. N., Zubair, M., Rizwan, K., Rasool, N., Bukhari, I. H., Akram, S., Bokhari, T. H., Shahid, M., Hameed, M., & Ahmad, V. U. (2012). Biological activities of Opuntia Monacantha cladodes. *Journal of the Chemical Society of Pakistan*, 34(4) (IF=1.360).

- Mehmood, N., Zubair, M., Rizwan, K., Rasool, N., Shahid, M., & Ahmad, V. (2012). Antioxidant, antimicrobial and phytochemical analysis of Cichorium intybus seeds extract and various organic fractions. *Iranian Journal of Pharmaceutical Research*, 11(4), 1145-1151 (IF=0.540).
- Naz, S. H., Zubair, M., Rizwan, K., Rasool, N., Jamil, M., Riaz, M., Imran, M., & Abbas, M. (2012). Phytochemical, Antioxidant and Cytotoxicity studies of Bambusa arundinacea leaves. *International Journal of Phytomedicine*, 4(2), 220.
- Riaz, M., Rasool, N., Bukhari, I., Rizwan, K., Zubair, M., Javed, F., Altaf, A., & Qayyum, H. (2012a). Antioxidant, Antimicrobial Activity and GC-MS analysis of Russelia equisetiformis Essential Oils. *Oxidation communications*, 35(4), 1027-1037 (IF=0.507).
- Riaz, M., Rasool, N., Bukhari, I. H., Shahid, M., Zubair, M., Rizwan, K., & Rashid, U. (2012b). In vitro antimicrobial, antioxidant, cytotoxicity and GC-MS analysis of Mazus goodenifolius. *Molecules*, 17(12), 14275-14287 (IF=2.428).
- Rizwan, K., Zubair, M., Rasool, N., Riaz, M., Zia-Ul-Haq, M., & de Feo, V. (2012). Phytochemical and biological studies of Agave attenuata. *International journal of molecular sciences*, 13(5), 6440-6451 (IF=2.464).

WORKSHOPS/CONFERENCES PRESENTATIONS

- 1) 10th international and 22nd national chemistry conference. November 21-23, 2011, Department of Chemistry and biochemistry, under Chemical society of Pakistan. University of Agriculture, Faisalabad, Pakistan (paper presented).
- 2) 1st international conference on safe food & human health, January 10-11, 2012, Department of Food science, in Govt. College University Faisalabad. Pakistan (paper presented).
- 3) 2nd international conference on Future perspectives of food processing industry in Pakistan & 2nd Food and nutrition Expo, December 1-12, 2012. Department of Food science. Govt. College University Faisalabad. Pakistan (paper presented).
- 4) 3-days national workshop on Research methodologies & effective publication practices, December 12-14, 2012, college of computer science and information studies. Govt. College University Faisalabad. Pakistan.
- 5) 1ST international conference on Global Enviromental Changes. January 15-16, 2013, in Govt. College University Faisalabad. Pakistan
- 6) One day symposium on collaborative endeavors of chemistry in industry. March 20, 2013. Department of chemistry, Govt. College University Faisalabad. Pakistan.
- 7) 1st international conference on Applied chemistry. November 18-20, 2013, Department of applied chemistry and biochemistry, Govt. College University Faisalabad. Pakistan (paper presented).

- 8) One day symposium on “modern trends in chemistry for humanity” January 23, 2014, Department of chemistry, Government college university Faisalabad. Pakistan.
- 9) 1st international conference on Applied chemical, Biological & Aquatic sciences & 1st science and education Expo, February 18-20, 2014. Govt college university Faisalabad Pakistan.
- 10) 1st International Conference of Biochemical and chemical Sciences (ICBCS-2014) “Go Greener for Sustainable Economy” held on February 24-26, 2014 organized by Department of Chemistry & Biochemistry, University of Agriculture, Faisalabad-Pakistan (Paper presented).
- 11) 2nd International Seerat Conference on “The stability of Pakistan in the light of Holy Prophet’s (PBUH) seat” January 9th-10th, 2018. Faculty of Islamic and oriental learning, Government College women university, Faisalabad.
- 12) One day seminar on “Recent trends in Biofuels” April 13th 2018, Department of Botany, Faculty of science and technology, Government College women university, Faisalabad.
- 13) Two days spring festival “Innovate: Unlock your future” 29-30th 2018, Organized by Office of research, innovation and commercialization, Govt. college women university Faisalabad.
- 14) Training workshop on “Bioinformatics Tools for research in Life sciences” January 19th 2018, Department of Biochemistry, Govt. college women university Faisalabad.
- 15) Two days Symposium on “How to write a write up” 31st Jan to 1st Feb 2018, Department of Chemistry, Govt. college women university Faisalabad.
- 16) One day national training on Histopathology, 20th april, 2018, Department of Pathology, Faculty of veterinary science, University of Agriculture, Faisalabad, Pakistan.
- 17) One day training workshop on “Bioassays for exploration of Bioactives, 20th march 2018. Department of Biochemistry, University of Agriculture, Faisalabad, Pakistan.
- 18) Two Day symposium on “Separation techniques” 10-11 May 2018, Department of Chemistry, Govt. college women university Faisalabad (**as an organizer**).
- 19) One day “Nano-Tech meeting on wastewater Treatment” 3rd May 2019, Department of Chemistry, University of Agriculture, Faisalabad, Pakistan.
- 20) Two Day symposium on “Multidisciplinary approach towards computational chemistry” September 25-26, 2019. Department of Chemistry, Govt. college women university Faisalabad.
- 21) Two Day Hands on Training workshop on “Advanced water quality/conservation technologies” September 23-24, 2019. Department of Chemistry, Govt. college women university Faisalabad.