Short CV

Personal Information:

Name: Bahgat Ramadan Mahmoud Hussein.

Date and Place of Birth: 15/03/1987. Sohag, Egypt.

Nationality: Egyptian. Marital Status: married.



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Academic Qualifications:

-Ph. D. Organic chemistry, synthesis of heterocyclic compounds titled "Synthesis, Reactions and Biological Studies of Some New Pyridine Derivatives." Sohag University, 2017.

-M.Sc. Organic chemistry, synthesis of heterocyclic compounds titled "Synthesis and Reactions of Some New s-Triazole Derivatives" Sohag University, 2012.

-B.Sc. of science (special chemistry), 2008.

-Military Certificate of Secondary Education, 2004.

Work Experience:

Designation:

- * Lecturer, Chemistry Department, Faculty of Science, Sohag University, 29/3/2017 up to now
- *Assistant Lecturer, Chemistry Department, Faculty of Science, Sohag University, 24/9/2012 to 28/3/2017.
- *Demonstrator, Chemistry Department, Faculty of Science, Sohag University, 24/1/2009 to 23/9/2012.

Responsibilities:

Teaching undergraduate students in practical and theoretical organic chemistry spanning first year to final year.

Research Interests:

• Multi-step organic synthesis; experience in routine organic chemistry laboratory methods; preparation of organic compounds and fine chemicals on a scale from 1 mg to 1 kg. Also, do the biological activity (antibacterial, antifungal, anti-inflammatory...etc) of these compounds.



- Biological characterization of new chemical entities in the context of drug discovery.
- Computational studies that provide fresh insight into the SAR of compound series that are of current general interest or analysis of other available data that subsequently advance medicinal chemistry knowledge.
- Able to analyze and optimize reaction processes, have the experience and skills independently to select and execute appropriate purification techniques for isolating analytically pure compounds on a range of reaction scales;
- Able to carry out, interpret and properly record the results of modern spectroscopic techniques, particularly NMR spectroscopy; Analytical methods: spectroscopy (FTIR, MS, ¹H, ¹³C); chromatography (TLC, HPLC, GC).

Summary of my research work:

Keeping in mind the enormous biological activities possessed by heterocyclic compounds we designed and synthesized new compounds containing various important heterocyclic nucleuses and developed some novel improved heterocyclic molecules as new antimicrobial agents. The heterocyclic compounds were prepared by multi-step synthesis belonging to triazoles, triazolothiadiazines, triazolothiadiazepines, triazolotriazoles, triazolo-oxadiazoles, triazolotriazepines, thienopyridines, pyrazolopyridines, imidazoles, thiophenes, pyrroles, Azo dye compounds and pyrimidines. The chemical structures of the compound were elucidated by elemental analysis, FT-IR, ¹H and ¹³C NMR, MS spectral data and X-ray crystallography. These compounds were subjected for biological screening against Bacillus cereus, Micrococcus litus, Pseudomonas aeruginosa, Escherichia coli, Serratia marcescens and Klebsiella pneumonia for their antibacterial activity; Aspergillus plavus, Aspergillus terreus, Aspergillus fumigates, Aspergillus ochraceous, Pichia anomola, Penicillium griseoflyum and Penicillium oxalicum for their antifungal activity. Anti-inflammatory activity screening for the chosen compounds was determined in vivo by the acute carrageenan-induced paw edema standard method in rats.

Computer Proficiency:

- International Computer Driving License (ICDL) certificate.
- Proficient in the use of Microsoft packages such as Microsoft Word, Excel, PowerPoint Access and MS-DOS etc., also proficient in program of SPSS.
- High skills in Internet and Chemistry Programs (Isis draw, Chem Draw, Acd Labs, Chem Office, ChemSketch.
- Good command of graphic design applications (Adobe Illustrator, PhotoShop).

List of publications:

Papers:

- 1-Ghattas, A. B. A. G.; Khodairy, A.; Moustafa, H. M.; <u>Hussein, B. R. M.</u>; "New Heterocyclic Compounds Derived from 4,6-Diamino-3-cyano-2-methylthiopyridine and their Biological Activity"; *J. Heterocyclic Chem.*, 54, 879 (2017).
- **2-** Ghattas, A. B. A. G.; Khodairy, A.; Moustafa, H. M.; <u>Hussein, B. R. M.</u>; Farghaly, M. M.; Aboelez, M. O.; "Synthesis, *in vitro* Antibacterial and *in vivo* Anti-inflammatory Activity of Some New pyridines"; *Pharm. Chem. J.*, accepted 27 Jan. (2016), in editing.
- **3-** Abd El-Badih A. G. Ghattas, Hassan M. Moustafa, Elsayed A. A. Hassanein and Bahgat R. M. Hussein, "Synthesis and Antibacterial Activity of Some New 4-anilino-5-phenyl-4*H*-1,2,4-triazole-3-thiol derivatives", *Arab. J. Chem.*, **9**, S1654 (2016).
- **4-** Ghattas, A. B. A. G.; Khodairy, A.; Moustafa, H. M.; <u>Hussein, B. R. M.</u>; "Synthesis and Biological Evaluation of Some Novel Thienopyridines"; *J. Pharm. Appl. Chem.*, **1**, 21 (2015).
- 5- Abd El-Badih A. G. Ghattas, Hassan M. Moustafa, Elsayed A. A. Hassanein and Bahgat R. M. Hussein, "Synthesis and Antibacterial Activity of Some New striazole Derivatives", *Phosphorus, Sulfur, and Silicon*, 187, 1469 (2012).
- **6-**Mohamed, S. K.; Knight, K. S.; Akkurt, M.; <u>Hussein, B. R. M.</u>; Albayati, M. R.; "Crystal structure of N-[4-amino-5-cyano-6-(methylsulfanyl)pyridin-2-yl]-2-chloroacetamide"; *Acta. Cryst.*, **E71**, 169 (2015).
- 7-Mohamed, S. K.; Knight, K. S.; Akkurt, M.; <u>Hussein, B. R. M.</u>; Albayati, M. R.; "Crystal structure of N-[4-amino-5-cyano-6-(methylsulfanyl)pyridin-2-yl]acetamide-hemihyd-rates"; *Acta. Cryst.*, **E71**, 171 (2015).
- **8-**Mohamed, S. K.; Knight, K. S.; Akkurt, M.; <u>Hussein, B. R. M.</u>; Albayati, M. R.; "Crystal structure of 4,6-diamino-2-(methylsulfanyl)pyridine-3-carbonitrile"; *Acta. Cryst.*, **E71**, 197 (2015).
- 9- Akkurt, M.; Mague, J. T.; Mohamed, S. K.; <u>Hussein, B. R. M.</u>; Albayati, M. R.; "Ethyl 2-[({[4-amino-5-cyano-6-(methylsulfanyl)pyridin-2-yl]carbamoyl}methyl) sulfanyl]acetate monohydrate"; *Acta. Cryst.*, **E70**, 745 (2014).
- **10-** Mohamed, S. K.; Mague, J. T.; Akkurt, M.; <u>Hussein, B. R. M.</u>; Albayati, M. R.; "3,4,6-Triamino-N-phenylthieno[2,3-b]pyridine-2-carboxamide"; *Acta. Cryst.*, E70, 805 (2014).
- 11-Mohamed, S. K.; Akkurt, M.; Singh, K.; <u>Hussein, B. R. M.</u>; Albayati, M. R.; "Crystal structute of 4,6-diamino-2-sulfanylidene-1,2-dihydropyridine-3-carbonitrile"; *Acta. Cryst.*, **E70**, 993 (2014).

12-Mague, J. T.; Mohamed, S. K.; Akkurt, M.; <u>Hussein, B. R. M.</u>; Albayati, M. R.; "Crystal structure of N-[4-amino-5-cyano-6-(methylsulfanyl)pyridin-2-yl]-2-(cyclohexylsulfanyl)acet-amide"; *Acta. Cryst.*, **E70**, 1031 (2014).

Conferences:

- 1. Abd El-Badih A. G. Ghattas, Ahmed Khodairy, Hassan M. Moustafa, <u>Bahgat R. M. Hussein</u>, "Synthesis of Some New S-Alkylpyridines and Thieno-pyridines" 5th International Chemistry Conference, Abha, Saudi Arabi, 26-29, April, 2014.
- 2. Abd El-Badih A. G. Ghattas, Ahmed Khodairy, Hassan M. Moustafa, <u>Bahgat R. M. Hussein</u>, "Studies on Activity of Amino Groups of 4,6-Diamino-3-cyano-2-methylthio-pyridine-2(1H)-thione" 13th Ibn Sina International Conference on Pure and Applied Heterocyclic Chemistry, Hurghada, Egypt, 14-17 February 2015.
- 3. Abd El-Badih A. G. Ghattas, Ahmed Khodairy, Hassan M. Moustafa, <u>Bahgat R. M. Hussein</u>, "4,6-Diamino-3-cyano-2-methylthiopyridine as a Building Block for Synthesis of Novel Amides, Arylhydrazones, 1,8-Naphthyridine, and Pyrimidines" *International Conference on Chemical Sciences & Applications*, Alex. Egypt, 6-9 Aug 2016.

References

- 1. Prof. Dr. **Abd El-Badih, A. G. Ghattas**, Professor of Organic Chemistry, Chemistry Department, Faculty of Science, Sohag University, Egypt. (Email: abdelbadihghattas@yahoo.com)
- 2. Prof. Dr. **Ahmed K. Mahmoud**, Professor of Organic Chemistry, Chemistry Department, Faculty of Science, Sohag University, Egypt. (Email: khodairy@yahoo.com)
- 3. Prof. Dr. **Hassan M. Moustafa**, Professor of Organic Chemistry, Chemistry Department, Faculty of Science, Sohag University, Egypt. (Email: hassa20002000@yahoo.com)