CURRICULUM VITAE

Aly Abdou
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Education

- **M.Sc.:** "September 2017" Inorganic Chemistry "Design of New Transition metal Complexes for Environmental Applications" from Chemistry Department, Faculty of Science, Sohag University, Egypt.
- **B.Sc.** "May 2010" Chemistry, Faculty of Science, Sohag University, Egypt with total grade "Excellent with Honors" (ranked first over the whole class).

Academic Employment

- Demonstrator of inorganic chemistry at Faculty of Science, Sohag University, starting from 24/1/*2011* till 25/9/2017
- Assistant lecturer of inorganic chemistry at Faculty of Science, Sohag University, starting from 25/9/2017 till now

Teaching Experience

- Teaching the experimental courses of physical, analytical and inorganic chemistry for undergraduate students (Science, Pharmacy, Engineering, Education and Agriculture students).

Publications

- A. M. Abdel-Mawgoud, Mohamed Ismael and **Aly Abdou**, Synthesis, Characterization, Antimicrobial Evaluation and DFT Calculations of Fe(III), Ni(II) and Cu(II) Complexes of Tridentate ONO Donor Ligand, J. Pharm. Appl. Chem. 3 (**2017**) 259-266 .
- Mohamed Ismael, **Aly Abdou** and A. M. Abdel-Mawgoud, Synthesis, Characterization, Modeling, and Antimicrobial Activity of Fe III , Co II , Ni II , Cu II , and Zn II Complexes Based on Tri-substituted Imidazole Ligand, Zeitschrift für anorganische und allgemeine Chemie. (**2018**) in press.

Research experience and skills

- The nature of work in the field of Design of New Transition Metal Complexes for Environmental Applications gained me a multidisciplinary experience in several topics: organic and inorganic chemistry, Biological, catalytic investigation and quantum chemical calculations.
- Excellent lab experience in the synthesis of organic ligands and inorganic coordination compounds.
- Strong experience in different characterization tools such as: elemental analysis (C H N), Molar conductivity, Magnetic susceptibility, Spectroscopic (NMR, IR & UV-Vis), Mass Spectra, Thermal Analysis (T.G.A & D.T.G) and complex stoichiometry
- Nice experience in Quantum Chemical Calculations based on Density Functional Theory (DFT) for both organic ligands and Metal Complexes.
- In-vitro antimicrobial screening against pathogenic bacteria and fungi that are common contaminants of the environment using either disc diffusion method or well-diffusion method.
- Molecular Docking analysis of small molecules with protein, the target enzyme of pathogenic bacteria and fungus, prostate cancer, breast cancer, Hepatitis A, B and C virus.
- Nice experience in electro-catalytic Hydrogen Evolution by metal complexes in Aqueous Solutions.
- Mimicking Catecholase and phenoxazinone synthase activities by prepared metal complexes
- Derivation and analysis of Structure Activity Relationship (SAR) model using Multi-Linear Regression analysis in order to correlate the biological/catalytic activity of the prepared complexes with their electronic structure parameters.

References

- **Prof. Dr. Abdel-Mawgoud. M. Abdel-Mawgoud**
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- **Prof. Dr. Mohamed Ismael**
  Associate Professor of physical Chemistry, Sohag University, Egypt
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