POLYTECHNIQUE MONTRÉAL
LE GÉNIE EN PREMIÈRE CLASSE

Mai Attia,MSc

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Education

- **Ecole Polytechnique Montreal, Montreal, QC, Canada** (*2015-Current)*
  Ph.D. Candidate, Department of Chemical

- **Ain Shams University, Cairo, Egypt** (2013)
  M.Sc. Degree, Department of Chemistry
  Thesis: "Formation of Organometallic Compounds through Metallating Agents"

- **Ain Shams University, Cairo, Egypt**
  Preliminary year for master degree "program of 45 credits with 15 courses " (2008)

- **Ain Shams University, Cairo, Egypt** (2004)
  B.Sc. Degree, Department of chemistry

Research Interests

- Reaction kinetics.
- Synthesis of novel materials.
- Catalytic reactions.
- Analytical chemistry.
- Polymer synthesis.
- Organometallics.
- Pyrolysis of biomass and wastes.
- Catalytic pyrolysis.
- Detecting the conformational change of protein using CD spectroscopic technique.
- Metallation reactions.
- Extraction of chemical compounds.

Work Experience

- **Ain Shams University, Cairo, Egypt** Demonstrator 2006-2010

Expertise

- Highly innovative chemist, with +5 years in concept initiation, product design and cost performance evaluation.

- Highly expert in Organics chemistry for more than 7 years.
- Preparation of new families of organometallic compounds that can be used in medical treatment
- High experience in preparation of novel dyes with medical properties.
- Product characterization using various analytical techniques (HPLC, GC, MS,TGA, DSC,NMR, UV and IR).

- High-throughput methods.
- Statistical analysis.
- High developed skills in experimental work and lab safety
- Innovative teacher for more than 7 years for postgraduate and undergraduate students.
- Organization of scientific conferences.
- Quality standards in education.
- Effective communication skills.
- Advanced Equipment utilization

Research Background

- Synthesis of organometallic compounds through metallating agents
- Synthesis of novel dyes
- Spectroscopic study of biological system
- Study the folding of different proteins
- Synthesis of heterocyclic compounds
- Synthesis of organic compounds
- heterogeneous and homogeneous catalysis
- catalytic reactions.

Teaching Experience

Ain shams university, Cairo, Egypt Lecturer 2006-2010

Journal Publications

- Mai Attia, Tahia Baiomy, and Emtithal El-sawi, "Metallation of solochrome cyanine R using metallated agents to form compounds having antimicrobial activities," Journal of Scientific Research, Faculty of Women, Ain Shams University (2009).

- Mai Attia, wafaa El-Sayed , and Emtithal Elsawi "Application of solochrome cyanine-r and some of its metallated products for dyeing wool and wool/PET," submitted.

Dissertation:

- **Attia, M**. (2013) "Formation of organometallic compounds through metallating agents," (M.Sc. thesis) Ain Shams University, Cairo, Egypt.

Conference publications/oralpresentations.

Conferences /presentations:

- **Attia, M**. " CD-spectroscopy as a powerful tool for investigating the mode of action of unmodified drugs in
live cells" chemistry and biochemistry department, Université du Québec à Montréal, Montréal, Quebec, Canada, 2013.
- **Attia, M**., "Detecting the conformational change of PACAP, rIAPP and hIAPP, by using CD spectroscopic technique" chemistry and biochemistry department, Université du Québec à Montréal, Montréal, Quebec, Canada, 2013.
- **Attia, M.** , Tahia Baiomy, Emtithal El-sawi, " Metallation of solochrome cyanine R using metallated agents to form compounds having antimicrobial activities" The 3rd Penang International Conference For Young Chemists (Penang ICYC), School of Chemical Sciences, Universiti Sains Malaysia, 2010.
- **Attia,M**. Tahia Mostafa, Emtithal El-Sawi*. "Metallation of Solochrome Cyanine R Using Metallated Agents to Form Compounds Having Antimicrobial Activities" MACRO 2010, Glasgow, UK.