Curriculum Vitae

Personal information:

Name: **Ahmed Abdelsattar Abdeltawab Mohamed**

E-Mail: aabdelsattar@ksu.edu.sa 4dr.ahmed@gmail.com

Tel:+966-548009520

Education:

PhD, Nagoya University, Nagoya, **Japan**, March 2002.

Dissertation Title: "Separation of Rare Earth Elements by Liquid-Liquid Extraction Techniques"

M.Sc in Inorganic Chemistry, Faculty of Science, Helwan University, Cairo, **Egypt**, October 1995.

Thesis title: 'Studies on Extraction and Separation of Rare Earth Elements from "Abu-Tartur" Phosphate Ore'

B.Sc in Chemistry, Faculty of Science, Helwan University, Cairo, **Egypt**, May 1989.

Current Research Interests:

- Extraction and separation techniques using ionic liquids.
- Removal of hazardous compounds for water purification.
- Electrodeposition of nano-metal composite coatings for industrial applications.

Work experience:

From April 2011 onwards:

Assistant Professor, Chemistry department, College of Science, King Saud University, Saudi Arabia.

From October 2003 onwards:

Assistant Professor, Department of Chemical Engineering at Tabbin Institute for Metallurgical Studies (TIMS), Tabbin, Cairo, **Egypt (on leave to King Saud University (KSU), Saudi Arabia since March, 2009)**

[TIMS is a postgraduate, research and consultancy institute affiliated from Ministry of Trade and Industry, metallurgy and environmental engineering are the main fields of work.]

- Teaching postgraduate courses: industrial wastewater treatment, environmental chemistry, physical chemistry, electrochemistry, cleaner production, solid and hazardous waste management.

- Supervising postgraduate students in their researches in industrial waste recycling, and new technologies for cleaner production in metal finishing.
- Providing consultancy services to industrial companies (steel galvanizing, home appliance, and oil pipelines companies).
- Carrying out researches related to coating of titanium metal by hydroxyapatite for biomedical applications.
- Conducting technical training courses for engineers and technicians at TIMS in electroplating, corrosion prevention, and metal coatings.
- Participated as a consultant for assessment of environmental protection projects (such as cleaner production technologies in metal finishing industries in Egypt) funded by Danish international development agency (DANIDA).

From March 2009 - to February 2011

Assistant Professor at Deanship of Scientific Research, King Saud University (KSU), Saudi Arabia

- Providing consultations concerning scientific colleges' funded research management.
- Participation as a team member in project for preparation of **KSU strategic plan for research (SPR)**.
- Participation in establishment of quality management system according to the requirements of **ISO 9001:2008** standard (certificate got in February 2010).

April 2002 - October 2003, and October 1995 – April 1998:

Assistant lecturer, Department of basic Sciences, Tabbin Institute for Metallurgical Studies (TIMS),Tabbin, Cairo, **Egypt**.

From March 1991 to October 1995:

Demonstrator, Department of Basic Sciences, Tabbin Institute for Metallurgical Studies (TIMS),Tabbin, Cairo, **Egypt**.

Training for Development of Teaching Skills:

The following training courses had accomplished under the "Program of Certificate of College Teaching" (provided by King Saud University, and will have international accreditation)

- Effective College Teaching.
- Learning Theories.
- Save Learning Environment.
- Learning Outcomes Assessment.
- Teaching Portfolio Development.
- Learning Management System (Blackboard).

Professional Training:

February – March, and August 2004:

The Senior Executive Program for the Middle East, Advanced managerial skills for executive management, Harvard Business School, **Harvard University**, Boston, **U.S.A**

December 2003:

Advanced Seminar on Industrial Waste Management and Minimization, Spanish International cooperation Agency, Madrid, **Spain**.

May 2003:

Approved ISO 9001:2000 Auditor / Lead Auditor, AJA regional office, Cairo, **Egypt.**

May – September 1996:

Surface Finishing Technology for Materials, Japan International Cooperation Agency, **Japan**.

Industrial Experiences:

Industrial experiences gained through:

- Providing **consultancy services** in environmental studies, cleaner production, as well as metal finishing to industrial companies (such as steel galvanizing, home appliance, and oil pipelines companies).
- Working as **consultant** for "Technological Development Sector", **Ministry of Trade & Industry of Egypt**, Jul. 2005-Jun.2006.

Technical skills and competences:

- Determination of heavy metals and lanthanides by Inductively Coupled Plasma (ICP) spectrometer.
- Determination of heavy metals by Atomic Absorption Spectrometer (AAS).
- Determinations by using UV-Visible spectroscopy.
- Competent with learning management system and learning technologies.
- Aware of academic accreditation documentation according to NCAAA.

Training Programs Conducted (as instructor):

Training courses conducted in UAE and KSA (SABIC & ARAMCO):

- Chemical Basic Statistical Analysis for Lab Data
- Handling & Dealing with Hazardous Materials
- Advanced Water Desalination Techniques
- Safety in Chemical Lab
- Distillation Unit Operation & Maintenance in Petrochemical Industry

Master Theses Supervised:

- "Effect of Using Sewage Waste on Heavy Metals Accumulation in Soils and Plants".
- "Improvement of Nutritive Value of Some Food Industrial Waste and Using them as Non-Traditional Feed Ingredients".
- "Strategic Development of Aluminum Industry in Libya".
- "Electrochemical Deposition of Nickel - SiC Composite Coating".
- "Electrodeposition of Nickel - Alumina Composite Coating on Copper Alloy".
- "Electrochemical Deposition of Hydroxyapatite on Titanium for Medical Applications".
- "Electroplating of Ni-Co Alloys from Citrate Bath on Brass".
- "Deposition of Hydroxyapatite on Titanium by Electrophoretic Technique for Bio-medical Application'.
- "Electrophoretic Deposition of Hydroxyapatite-Chitosan Composite on Titanium."

Scientific Publications (ISI):

1. Synergistic Extraction of Some Rare Earth (III) from Nitrate Media by Thenoyl Trifluroacetone and Tri-n-octylamine, Separation Science and Technology, Vol. 31, no. 18, pp. 2579-2587, **1996**.
2. Extraction of Uranium from Abu-Tartur Phosphate Aqueous Leachate Solution, Separation Science and Technology, Vol. 32, no.12, pp. 2071, **1997**.
3. Separation of La and Ce with PC-88A by Counter-Current Mixer-Settler Extraction Column, Separation and Purification Technology, *Vol. 26, pp. 265-272, **2002**.*
4. Extraction of Rare Earth Metals with a Multistage Mixer-Settler Extraction Column, Chemical Engineering Science, *Vol. 57, pp. 469-478, **2002**.*
5. Extraction of Lanthanides and Yttrium with PC-88A from Aqueous Phosphate Media, International Solvent Extraction Conference *(ISEC), Cape Town, South Africa, March 18-21, **2002**.*
6. Separation of Lanthanides by Extraction with PC-88A in Dodecane. Solvent Extraction Research and Development, Japan, Vol. 8, pp. 186, **2001**.
7. Electrochemical Evaluation of Electrophoretically Deposited Hydroxyapatite on Titanium in physiological media, *TIMS Bulletin, V.92, **2008.***
8. Electrophoretic deposition of hydroxyapatite coatings on titanium from dimethylformamide suspensions, *Surface&Coatings Technology 206, **2011**.*
9. Evaluation of the chemical composition and element analysis of Urtica dioca, African Journal of Pharmacy and Pharmacology *Vol. 6(21), pp. 1555, **2012**.*
10. Phytochemical analysis and biological activities of selected medicinal plants, Journal of Medicinal Plants Research *Vol. 6(23), pp. 4005-4010, **2012**.*

11. Comparative Evaluation of Physiochemical and GC-MS Analysis of Sour Oranges and Sweet Oranges Peels Oil, Life Science Journal *2013;10(10s),* ***2013****.*
12. Corrosion behaviour and bioactivity of electrophoretically deposited hydroxyapatite on titanium in physiological media (Hanks' solution), Materials Science-Poland, *30(3), pp. 231-239,* ***2012****.*
13. Influence of pre-immersion of ionic liquid on the corrodability of zinc in chloride containing environment, submitted to International Journal of Electrochemical Science, *8 (2013) 6829 – 6838,* ***2013****.*
14. Preparation and Characterization of Bulk and Alumina Supported Hausmannite Nanoparticles, Asian Journal of Chemistry; *Vol. 26, No. 7 2120-2124,* ***2014****.*
15. Precipitation–deposition assisted fabrication and characterization of nano-sized zinc manganite, Journal of Industrial and Engineering Chemistry *20 (2014) 2901–2904,* ***2014****.*
16. Extractive desulfurization and denitrogenation of fuels using functional acidic ionic liquids, Separation and Purification Technology *133 (2014) 187–193,* ***2014****.*
17. A review of extractive desulfurization of fuel oils using ionic liquids, The Royal Society of Chemistry Advances*, 4, 35302,* ***2014****.*
18. Functional Solution Composed of Cu(I) Salt and Ionic Liquids to Separate Propylene from Propane, Industrial & Engineering Chemistry Research (The American Chemical Sociey), *53, 13430−13435,* ***2014****.*
19. Extractive Desulfurization of Fuel Oils with Dicyano(nitroso)methanide-based Ionic Liquids, Separation Science and Technology, *50,1166-1174,* ***2015****.*
20. Isobaric Vapor−Liquid Equilibrium for Acetone + Methanol +Phosphate Ionic Liquids, Journal of Chemical & Engineering Data, *60, 612−620,* ***2015****.*
21. Brønsted−Lewis Acidic Ionic Liquids and Application in Oxidative Desulfurization of Diesel Fuel, Energy & Fuels, *29, 2998−3003,* ***2015****.*
22. Using functional acidic ionic liquids as both extractant and catalyst in oxidative desulfurization of diesel fuel: An investigation of real feedstock, Fuel, *146, 6–12,* ***2015****.*
23. Desulfurization of Fuel Oil: Conductor-like Screening Model for Real Solvents Study on Capacity of Ionic Liquids for Thiophene and Dibenzothiophene, Industrial & Engineering Chemistry Research, *54, 9421−9430,* ***2015****.*
24. Separation of propylene and propane by alkylimidazolium thiocyanate ionic liquids with Cu^{+} salt. *Separation and Purification Technology*, *156, 356-362,* ***2015****.*
25. CO_2 absorption by binary mixture of ionic liquids-monoethanolamine at lower pressure. Int. J. Greenhouse Gas Control, *44, 52-58,* ***2016****.*
26. Desulfurization of fuel oils: Mutual solubility of ionic liquids and fuel oil. Fuel 173, 164–171, **2016**.

27. N-methyl-2-pyrrolidonium-based Brönsted-Lewis acidic ionic liquids as catalysts for the hydrolysis of cellulose, Science China Chemistry, Vol.59, No.5, 564–570, May (**2016**)
28. Oxidative Desulfurization of Gasoline by Ionic Liquids Coupled with Extraction by Organic Solvents, J. Braz. Chem. Soc., Vol. 27, No. 6, 998-1006, **2016**.
29. Mutual solubility of acidic ionic liquid and model gasoline of n -octane + 1-octene + toluene, Journal of the Taiwan Institute of Chemical Engineers, 69, 78-84, **2016**.
30. Separation of propylene and propane by functional mixture of imidazolintum chloride ionic liquid – Organic solvent – Cuprous salt, Separation and Purification Technology, 175, 177-184, **2017**.