

Curriculum vita

Assoc. Prof. Fatma Mohamed Mahgoub



Personal Details

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Date of Birth: December 3, 1958

Marital Status: Married

Sex: Female

Nationality: Egyptian

Position: Associate Professor of Electrochemistry and Corrosion, Materials
science Department, Institute of Graduate Studies and Research, Alexandria
University, Egypt.

Education

- **Ph.D. Degree in Materials Science**, Department of Materials Science, *Institute of Graduate Studies and Research (IGSR)*, Alexandria, Egypt. (1996).

Thesis entitled: "Rates of Metallic Corrosion in Aqueous Solutions Containing Organic Additives"

- **M.Sc. Degree in Physical Chemistry**, Department of Chemistry, Faculty of Science Alexandria, university, Egypt. (April 1986)

Thesis entitled: "Inhibition of the Acid Corrosion of Steel by Some Organic Compounds"

- **Bachelor's degree in Special Chemistry**, Faculty of Science, Alexandria University, Egypt. **Grade: Very good.** (May 1981).

Occupation

- **2011 till current date: Associate professor** of electrochemistry and corrosion, **Materials science Department, Institute of Graduate Studies and Research**, Alexandria University, Egypt.
- **2000 - 2011: Associate Professor** of Physical Chemistry, **Chemistry Department, Faculty of Science, King Abdul Aziz University (KAU)**, Jeddah, KSA.
- **1996 - 2000: Lecturer** of Physical Chemistry in **Materials Science Department, Institute of Graduate Studies and Research**, Alexandria University, Alexandria

- **1997-2000:** Lecturer at **Chemistry** Department, Faculty of **Engineering**, Arab Academic for Science and Technology (AAST), Alexandria, Egypt.
- **1993-1995:** Full time researcher at University of **Manchester** in (UMIST) in the field of **Corrosion**, Manchester, **United Kingdom**.
- **1986-1992:** Assistant Lecturer in **Materials Science** Department, Institute of Graduate Studies and Research, Alexandria University, Alexandria, Egypt.
- **1981-1985:** Demonstrator in Materials Science Department, Institute of Graduate Studies and Research, Alexandria University, Alexandria, Egypt.

National Memberships

1996- till current date: Member of Egyptian Corrosion Society (**ECS**)

1990 – till current date: Member of the Arabic society of Materials Science (**ASMS**)

Teaching Courses

- **IGSR:**
 - ✓ Thermodynamics and kinetic.
 - ✓ Electrochemistry and Electrode Kinetics.
 - ✓ Materials and Environment.
- **AAST:**
 - ✓ Principles of Corrosion.
 - ✓ Forms of Corrosion.
 - ✓ Fuel and Combustion.

- ✓ Lubrication and Lubricants
- ✓ Water Content and Treatment
- ✓ Pollution of Environment

- **KSA:**

- ✓ General chemistry (110)
- ✓ General science (100)
- ✓ Thermodynamics (241)
- ✓ Chemical kinetics (344)
- ✓ Physical polymer (441)
- ✓ Electrode dynamics (446)
- ✓ Photo chemistry (444)
- ✓ Advanced thermodynamics (640)
- ✓ Graduated research (491)
- ✓ Special topics – Corrosion (695)

Academic Degree's Supervision

I have supervised a number of M.Sc. and Ph.D. students in the following areas of research:

❖ Ph.D. Supervision:

- 1- Eman Hameed “water extract of some plants as green corrosion inhibitors on mild steel in acidic solution” (2017)
- 2- Yasser El.Samadisly "New heterocyclic formations to control corrosion of ferrous alloy in cooling water system” (1997)
- 3- Mosaad El-Kasaby "Inhibition of corrosion of steel in sea water" (1996)

❖ *M.Sc. Supervision:*

- 1- Mohamed shenawi “Preparation and characterization of some eco-friendly corrosion inhibitor for emulsion paint” (2018)
- 2- Ahmed AboHelwa “Study the effect of parameters on scale formation during hot strip rolling” (2018)
- 3- Omar Gamal “Effect of Nano particles-coated welding electrodes on mechanical and electrochemical behavior of welded joints” (2018)
- 4- Radwa Zaraa “Study of the green corrosion inhibitors for steel in acidic medium” (2017).
- 5- Mohamed Elsayed “Mechanical properties and electrochemical behavior for system borosilicate glass” (2017).
- 6- Ahmed Hassan “poly pyrrol deposit on the metal to apply supper capacitor” (2017).
- 7- Amal Elsadari "Inhibition of the acid corrosion of steel by some organic compounds" (2007).
- 8- Abobaker Aknish "Inhibition of corrosion of steel in crude oil storage tanks" (1998).
- 9- Amr Abdelaziz "Inhibition of the corrosion of Aluminum in Perchloric acid solution" (1998).
- 10- Adel Hashem "Effect of cold work on the corrosion of mild steel in acid medium" (1997).
- 11- Mohamed Reda "Effect of stirring on the rate of electrodepositing of metals" (1996).
- 12- Ahmed El.Hafnawy "Pitting corrosion of Nickel" (1993).

Scientific Courses Activities

- 1- A course on principles of corrosion and protections methods (1996)
- 2- A course on principles of corrosion and protections methods (1997)
- 3- A course on principles of corrosion and protections methods (1998)

Short Courses

I have been involved in cooperation with Alexandria University and the industry in Egypt through some short courses about:

- 1- A course on "*Fundamentals materials science*" (1999).
- 2- A course on the "*Thermal analysis and its application in industry*" (1999).
- 3- A course on "*Technical Writing*" (1993) and (1997).
- 4- A course on "*Corrosion in industry and efficiency of materials*" Case study (1992).
- 5- A course on "*Industrial hygiene and safety in petroleum and chemical industry*" (1991).
- 6- A course on "*uses of light and electronic microscope on a study the general materials and polymers specially*" (1991).
- 7- *Winter School* (1991).
- 8- A course on "*Applications of computer in chemical science*" (1990).

Activities

1. **Chairman** and Organizer at "*The 17th Arab International Conference on Materials Science*", Institute of Graduate Studies and Research, Alexandria University, Alexandria, Egypt (**December 2017**)

2. **Chairman** and Organizer at *“The 16th Arab International Conference on Materials Science”*, Institute of Graduate Studies and Research, Alexandria University, Alexandria, Egypt (**December 2016**)
3. **Organized** and successfully Attended *1st international conference on applied chemistry “Chemistry for sustainable world”*, (ICAC), KAU, Jeddah, KSA, (**November 2015**)
4. Member in *Research and Innovation Unit*, Faculty of Science, KAU, Jeddah, KSA (**2015**).
5. Attended *“Forum of scientific faculties for students”*, KAU, Jeddah, KSA (**2015**).
6. Attended and successfully finished workshop about statistical analysis *“SPSS”* KAU, Jeddah, KSA (**2015**).
7. Attended *Royal Society of Chemistry Second Gulf Symposium* on *“The Design and Application of Advanced Materials”*, KAU, Jeddah, KSA, December (**2014**).
8. Attended and successfully finished workshop about *“Endnote”*, KAU, Jeddah, KSA (**2014**).
9. Attended and successfully finished work shop about *“Mobil learning”* and social networks, KAU, Jeddah, KSA (**2014**).
10. Attended a Lecture about *“Web applications”*, KAU, Jeddah, KSA (**2014**).
11. Attended *6th Scientific Forum for students*, Faculty of Science, KAU, Jeddah, KSA (**2014**).
12. Attended *“The Advances in Biological Sciences Symposium”*, IGSR Biotech. Society, Institute of Graduate Studies and Research, Alexandria University, Alexandria, Egypt (**August 2013**).
13. **Organized and attended the 5th Scientific Forum for students**, Faculty of Science, KAU, Jeddah, KSA (**2013**).

14. Participated in Scientific Forum in "*Sustainable Development Fields and Goals*" KAU, Jeddah, KSA (2013).
15. Attended 4th *Scientific Forum for students*, Faculty of Science, KAU, Jeddah, KSA (2012).
16. Attended and successfully finished the training program on "*Effective Teaching*", Center for Teaching and learning Development, KAU, Jeddah, KSA (2012).
17. Attended and successfully finished work shop on "How to use E - Learning System" "**emes**" KAU, Jeddah, KSA (2012).
18. Attended and successfully finished work shop on "How to use Virtual Classroom System" "**Centra**" (2012).
19. Attended the "*Environmental Forum*" at center of Excellent in Environmental studies (2010).
20. Attended "*First and Second Forum of Scientific for Post Graduates Students*" at Faculty of Science, Jeddah, KSA, (2010).
21. Participate by **oral presentation** "*Inhibition of the acid corrosion of steel by some organic compounds*", National Chemistry Conference - Saudi Chemical Society, Makkah, KSA, April (2007).
22. Participate by **oral presentation** "*Inhibition of the Corrosion of Mild Steel in Neutral Medium by Nitrogen Tetradentate Ligands using AC Impedance*" at "*Sixteenth international conference on corrosion problems in industry*", Alexandria, Egypt (1997).
23. Participate by **oral presentation** "*Acid corrosion inhibition of nickel by some organic macrocyclic compounds*" at "*Fourth international conference on frontiers of polymers and advanced materials*". Alexandria, Egypt, (1997).

❖ Reviewed Articles for:

- British journal of applied science and technology.
- Journal of King AbdulAziz University.

Publications

1. [F.M Mahgoub](#), A.M Hefnawy, A.M Abo Helwa, M.A Darweesh, Strip Thickness Effect on Scale Thickness and Picklability for "S235JR" DJ Journal of Engineering Chemistry and Fuel, Vol. 3(2) (2018), pp. 1-8
2. [F.M. Mahgoub](#) "Photocatalytic Decomposition of Acid Alizarine Violet N by Using UV/TiO₂/Oxidants", (IJATTMAS), Vol. 4 issue 8, (2018), 27-41.
3. [F. M. Mahgoub](#), Abdel moneum M Ahmed & Mona A. Darweesh "Adsorption Kinetic Study for Removal of Heavy Metal from Aqueous Solution by Natural Adsorbent" (IJATTMAS), vol. 4, issue 8, (2018), pp 1-19.
4. Abdel moneum M Ahmed, Mohammed A Elmorsi, Mona A. Darweesh. [F. M. Mahgoub](#) & Amany MMahmoud "Inhibition of Electropolishing of Steel in the Presence of Different Carboxylic Acids" (IJATTMAS), Vol. 4 issue 5. (2018) 1-19.
5. [F. M. Mahgoub](#), A. Hefnawy, M. EL-Shnawie and A. Esmail, "Preparation and characterization of an emulsion paint based on Arghel extract as an Eco-friendly corrosion inhibitor" *Key Engineering Materials*, ISSN: 1662-9795, Vol. 786, pp 149-158
doi:10.4028/www.scientific.net/KEM.786.149 © 2018 Trans Tech Publications, Switzerland
6. [F. M. Mahgoub](#), S.M. Al-Rashdi, "Investigate the corrosion inhibition of mild steel in sulfuric acid solution by Thiosemicarbazide" *Open J Phys Chem* 6, (2016), 54-66.
7. A A Ganash, [F. M. Mahgoub](#), "Electrochemical synthesis and corrosion performance of poly o-anisidine on 304 stainless steel" *Protection of Metals and Physical Chemistry of Surfaces* 52 (3), (2016), 555-561

8. NA Wazzan, [F. M. Mahgoub](#), "DFT calculations for corrosion inhibition of ferrous alloys by pyrazolopyrimidine derivatives" Open Journal of Physical Chemistry 4 (01), (2014), 6-14.
9. [F. M. Mahgoub](#), "Electrochemical Corrosion Behavior of Aluminum in Perchloric Acid" Open Journal of Physical Chemistry 3 (04), (2013), 177-188.
10. [F. M. Mahgoub](#), AM Hefnawy "Inhibition Mechanism of Pitting Corrosion of Nickel in Aqueous Medium by Some Macrocyclic Compounds" Open Journal of Physical Chemistry 2 (04), (2012), 221-227.
11. [F. M. Mahgoub](#), F. M. Al-Nowaiser and A. M. Al-Sudairi, "Effect of temperature on the inhibition of the acid corrosion of steel by benzimidazole derivatives" Protection of Metals and Physical Chemistry of Surfaces 47 (3), (2011), 381.
12. [F.M. Mahgoub](#), B.A. Abdel-Nabey and Y.A. El-Samadisly, "Adopting a multipurpose inhibitor to control corrosion of ferrous alloys in cooling water systems" Materials Chemistry and Physics 120 (1), (2010) 104-108.
13. [F. M. Mahgoub](#), Effect of protonation on the inhibition efficiency of thiourea and its derivatives as corrosion inhibitors" Anti-Corrosion Methods and Materials 55 (6), (2008), 324-328.
14. GH Sedahmed, MA Khatab, [F. M. Mahgoub](#), MR Al-Azzony, "Solid-liquid mass transfer at the base of a rectangular agitated vessel" Chemical Engineering Communications 191 (2), (2004)168-181.
15. MA Khalifa, M El- Batouti, [F. M. Mahgoub](#), A Bakr Aknish, "Corrosion inhibition of steel in crude oil storage tanks" Materials and Corrosion, 54 (4), (2003). 251-258

16. N.Khlil, [F.M. Mahgoub](#), B. Abd-El-Nabey and, A. Abdel-Aziz. "Corrosion of aluminium in perchloric acid in presence of various inorganic additives" Corrosion engineering, science and technology 38 (3), (2003), 205-210.
17. [F.M. Mahgoub](#), BAA El-Nabey, SA El-Kharashi, M Atteya, MS Ramadan, "Inhibition of corrosion of steel in produced water of Western Desert crude oil" Journal of applied electrochemistry 32 (7), (2002), 775-781.
18. MK Awad, [F.M. Mahgoub](#), MM El-Iskandarani, "Theoretical studies of the effect of structural parameters on the inhibition efficiencies of mercapto-1, 2, 4-triazoline derivatives" Journal of Molecular Structure: THEOCHEM 531 (1-3), (2000), 105-117.
19. [F.M. Mahgoub](#), BA Abd-El-Nabey, M Khalifa, A. El-Hefnawy, "Acid Corrosion Inhibition of Nickel by Some Organic/Macrocyclic Compounds" Science and Technology of Polymers and Advanced Materials, (1998), 175-184.
20. [F. M. Mahgoub](#), B. A. ABD-EL-Nabey, G.E.Thompson and S.Turgoose, "Inhibition of the Corrosion of Mild Steel in Neutral Medium by Nitrogen Tetradentate Ligands using AC Impedance." Sixteenth international conference on corrosion problems in industry. Egypt, (1997).
21. BA El-Nabey, M El-Gamal, E Khamis, [F.M. Mahgoub](#), Acid corrosion of steel in water-dimethyl formamide solutions Surface and Coatings Technology 31 (1), (1987) 89-101.
22. BA Abd-El-Nabey, A El-Toukhy, M El-Gamal, [F. M. Mahgoob](#), 4-amino-3-substituted-5-mercapto-1, 2, 4-triazolines as inhibitors for the acid corrosion of steel, Surface and Coatings Technology 27 (4), (1986) 325-334

[References and all other relevant documents will be furnished upon request](#)