



Curriculum Vitae

Rabab Mahmoud Ahmed El-Sherif

Associate professor of physical chemistry

Department of chemistry, Faculty of Science, Cairo University

Giza, Egypt

I. Personal Data

Gender: Female

Date and Place of Birth: July, 5, 1974 Cairo, Egypt

Nationality: Egyptian

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II. Academic Record

- | | | |
|------|---|--------------------|
| 2004 | Ph.D. | (Cairo University) |
| | <i>Title of Ph.D. Thesis: Electrochemical Behavior of Some Brass Alloys in Aqueous Media</i> | |
| 2000 | M.Sc. | (Cairo University) |
| | <i>Title of M.Sc. Thesis: Study of Corrosion Inhibition of Aluminum in Hydrochloric Acid Solution</i> | |
| 1996 | B.Sc. | (Cairo University) |

III. Academic positions

Period	Position	Institution
2010-till now	Associate professor	Cairo University
2004-2010	Lecturer	Cairo University
2000-2004	Assistant Lecturer	Cairo University
1997-2000	Demonstrator	Cairo University

IV. Teaching experience:

- 1- Teaching practical, general, physical chemistry and electrochemistry for undergraduate students for 1st, 2nd, 3rd and 4th years since 1997 till now.
- 2- Teaching courses of general and physical Chemistry for science, dentistry, pharm. and biotechnology students (Chem. 101, Chem102, Chem. 211, Chem. 318, Chem. 412 (Energy conversion), Ptc. 202, BioC.209. from 2005 till now.
- 3- Teaching industrial engineering course for engineering students in the High Institute of Technology.
- 4- Teaching General Physical Chemistry for dentistry students in Misr International University (MIU).

Other Qualifications:

Language:

- Arabic Mother tongue
- English Fluent
- French Good
- Germany Fair

Computer skills:

- Very good in Microsoft programs, internet navigation, scientific drawing programs (ex. Sigma plot, chemdraw..Etc)
- ICDL diploma

Research interests:

Electrochemistry including, fuel cells and solar cells, corrosion and corrosion protection, porous films formation, electro-oxidation processes and biological implantation.

V. PhD and M.Sc. Supervision:

Seven Theses of Master and Ph.D

VI. List of Publications

1. H.A. El-Dahan, T.Y. Soror, **Rabab M. El-Sherif**, "Studies on the inhibition of aluminum dissolution by hexamine-halide blends Part I. weight loss, open circuit potential and polarization measurements." Material Chemistry and Physics, 2005, 89, 260-267.
2. H.A. El-Dahan, T.Y. Soror, **Rabab M. El-Sherif**, "Studies on the inhibition of aluminum dissolution by hexamine-halide blends Part II: Surface analysis (SEM, AES investigations). Material Chemistry and Physics, 2005, 89, 268-274.
3. **Rabab M. El-Sherif**, K.M. Ismail, W.A. Badawy, "Effect of Zn and Pb as alloying elements on the electrochemical behavior of brass in NaCl solutions." Electrochimica Acta, 2004, 49, 5139-5150.
4. K.M. Ismail, **Rabab M. El-Sherif**, W.A. Badawy, "Effect of Zn and Pb contents on the electrochemical behavior of brass alloys in chloride-free neutral sulfate solutions." Electrochimica Acta, 2004, 49, 5151-5160.
5. K.M. Ismail, **Rabab M. El-Sherif**, W.A. Badawy, "Influence of Zinc and Lead on Brass Corrosion in Dilute Sulfuric Acid.", Corrosion NACE, 2005, 61, 411-419.
6. Waheed A. Badawy, **Rabab M. El-Sherif** and Hassan Shehata; "Electrochemical Behavior of Aluminum Bronze in Sulfate-Chloride Media" Applied Electrochemistry, Oct.2007, vol.37, no.10, p.1099- 1106.
7. Sahar A. Fadllah, **Rabab M.A. El-Sherif** and Waheed A. Badawy, "Electrochemical formation and characterization of porous titania (TiO₂) films on Ti" J. Appl. Electrochemistry 38:1459-1466 (2008).
- 8- Waheed. Badawy, Ahlam Fathy, **Rabab M. El-Sherif** and Sahar A. Fadllah " Electrochemical and biological behaviors of porous titania (TiO₂) in simulated body fluids for implantation in human bodies" Journal of Alloys and Compounds 475 (2009) 911-916
- 9- Waheed A. Badawy, **Rabab M. El-Sherif** and Hassan Shehata "Electrochemical stability of Cu-10Al-5Ni alloy in chloride-sulfate electrolytes" Electrochimica Acta 54 (2009) 4501-4505
10. A.M. Fekry, **Rabab M. El-Sherif** "Electrochemical corrosion behavior of magnesium and titanium alloys in simulated body fluid" Electrochimica Acta 54 (2009) 7280- 7285.
11. Waheed A. Badawy, **Rabab M. El-Sherif**, Shaaban A. Khalil "porous Si layers-Preparation, characterization and morphology" Electrochimica Acta 55 (2010) 8563-8569.
12. **Rabab M. El-Sherif**, Shaaban A. Khalil and Waheed. A. Badawy "Metal-assisted Etching of p-silicon - pore formation and characterization" Journal of Alloys and Compounds, 509 (2011) 4122-4126

13. **Rabab M. El-Sherif** and Waheed A. Badawy “Mechanism of corrosion and corrosion inhibition of tin in aqueous solutions containing tartaric acid” *Int. J. Electrochem. Sci.*, 6(2011).
14. A. Kamal, **R.M.EL-Sherif**, R. Abdel-Karim, S. El-Raghy, and A.Waheed “ Room Temperature Anodization of Aluminum at Low Voltage” *Arab Journal of Nuclear Science and Applications*, 46(2),(267-275) 2013.
- 15- R. Abdel-Karim A. Essa, **R. El-Sherif**, Omar A.A. Abdelal, S. El-Raghy “Effect of Low Voltage on Surface Morphology and Electric Properties of Porous Alumina Prepared by One Step Anodizing at Room Temperature” *International Journal of Scientific & Engineering Research*, Volume 5, Issue 9, page 495 September (2014).
- 16- R.M. Abdel Hameed, **Rabab M. El-Sherif** “ Microwave irradiated nickel nanoparticles on Vulcan XC-72R carbon black for methanol oxidation reaction in KOH solution” *Applied Catalysis B: Environmental*, Volume 162, January 2015, Pages 217-226
- 17- Mahmoud A. Rabah , **Rabab M. El-Sherif**, Hayat H. El Agamy, Mohamed Shaaban, Abo Rehab H. Mahmoud “CARBON-CUPROUS OXIDE COMPOSITE NANOPARTICLES ON GLASS TUBES FOR SOLAR HEAT COLLECTION” *International Journal of Technical Research and Applications* , Volume 3, Issue 3 (May-June 2015), PP. 11-16
- 18- **R.M. Abdel Hameed, Rabab M. El-Sherif** " Ni–P–SnO₂/C composite: Synthesis, characterization and electrocatalytic activity for methanol oxidation in KOH solution" *International Journal of Hydrogen Energy*, Volume 40, Issue 32, 24 August 2015,Pages 10262-10273.
- 19- H. B. Hassan, Z. Abdel Hamid , **Rabab M. El-Sherif** "Electrooxidation of methanol and ethanol on carbon electrodeposited Ni–MgO nanocomposite" *Chinese Journal of Catalysis* 37 (2016) 616–627
- 20- **Rabab M.A. El Sherif**, "Electrochemical Behavior of Cu-Al-Ni Alloy in Simulated Body Fluids", *International Journal of Advanced Engineering Research and Science*, Vol- 3, Issue-11, Nov- 2016, Pages 184-198.
- 21- **Rabab M.A. El Sherif**, Giovanna Gabetta, *International Journal of Electrochemistry*, accepted 2017, Under Press.

Papers published in international conferences:

- 1- **Rabab M. El-Sherif**, Wafa A. Mohamed "Chronopotentiometry and conservation of archeological coins "Published paper in the twenty four international conference for the corrosion problems in industry- Hurgada, Egypt. 5-8 December 2005.

- 2- **Rabab M. El-Sherif**, Shaaban A. Khalil and Waheed. A. Badawy, "Metal-assisted etching of silicon - nano and micro porous structures for industrial applications" Accepted paper in the international conference chem-6 1-4 Mars 2010, Cairo University- Faculty of Science-Chemistry department.
- 3- **Rabab M.A. El-Sherif** , Khaled M. Ismail, Waheed A. Badawy, " SYNERGISTIC EFFECT OF IODIDE ION ON THE CORROSION INHIBITION OF INDUSTRIAL ALLOY IN ACID MEDIUM USING ENVIRONMENTALLY SAFE CORROSION INHIBITORS" proceeding of 17th APCCC Jan 27-30, 2016 at Mumbai, India.

VII. Conference publications after appointed as Lecturer:

1. 1-"Environmentally Safe Corrosion Inhibition of Cu-38Zn Alloy in Acidic and Neutral Sulfate Solutions." In the First World Congress on Corrosion in the Military in Sorrento, Italy June, 6-8th 2005.
2. 24th Corrosion problem in Industry conference in Hurgada 5-8 Dec. 2005 " Chronopotentiometry and Conservation of Archaeological Coins"
3. Biannual Conference on Chemistry "Chem-4 5-8 March 2006"Cairo University. "Synergistic Effect of Iodide ion on the Corrosion Inhibition of Cu-38Zn Alloy in Sulphuric Acid Solution Using Environmentally Safe Corrosion Inhibitors"
4. Second International Conference-Modern Trends in Physics Research(MTPR-06) April 6-11, 2006 Cairo/Luxor " Characterization of the Nanostructure Porous (TiO₂) Oxide films for Biomedical Application."
5. Corrosion Modeling to Enable Corrosion informed material selection to life prediction 29-31 July 2006 "Cernobbio, lake Como, Italy." Modeling and Evaluation of impedance measurements on Brass Alloy Cu-38Zn Corrosion in Sulfuric acid Solution in the presence of heterocyclic Compounds."
6. Corrosion Problems In Industry 4-6 December, 2006 Palemra Hotel, El-Sokhna, Red Sea, Egypt, "Electrochemical Behavior of Aluminum Bronze in Sulfate-Chloride Media."
7. Chem-05 Green and Sustainable Chemistry in Developing Countries 3-6 March 2008 Cairo, Egypt "Industrial Applications of Aluminum Bronze in Sulfate-Chloride Electrolytes and their Corrosion Problems."
8. 8-"Toward a Corrosion network between North Africa And the net-Med" Social networks for Corrosion and Life Prediction of industrial components ,VeneziaTecnologie, Porto Marghera (Venice) 06-07 October 2008.
9. The 28th Annual Conference Corrosion Problems in Industry 14-17 December 2009 Ramada Hotel, Ras - Sudr, Egypt "Electrochemical Impedance Study of Magnesium and Titanium Alloys in Simulated Body Fluid".
10. The 6th international Chem-conference 1-4 March 2010, Cairo University, Faculty of Science-chemistry department
11. The 1st International Biotechnology Innovation Conference IBIC-Egypt, 21-23 Nov. 2010, Faculty of Science, Cairo University

12. The 11th international conference for Mediterranean countries in petroleum Tripoli, Libya 23-25 Feb. 2010
13. International Conference on Corrosion Mitigation and Surface Protection Technologies 14-16 December, 2010 Plaza Hotel, Alexandria, Egypt
14. The first international biotechnology innovation conference (IBIC Egypt 2010) 21-23 Nov. 2010, Cairo University, conference center, Cairo, Egypt.
15. The 8th international scientific conference, Al-Azhar university (environment, development and bioinformation) 26-28 March 2012, Cairo, Egypt.
16. The 2nd International conference on "corrosion mitigation and surface protection technologies" 10-13 December 2012 Seagull Hotel – Hurghada Egypt.
17. The 3rd International conference on Corrosion Mitigation and Surface Protection Technologies" 8-11 December 2014 Steigenberger Hotel - Luxor, Egypt
18. Sub-regional Meeting on SCIENCE, TECHNOLOGY AND INNOVATION (STI) POLICY DIALOGUE Grand Nile Tower Hotel, Cairo, Egypt February 22-26, 2015.
19. 4th International Conference on Corrosion Mitigation and Surface Protection Technologies 14-17 December, 2015, *Seagull Hotel - Hurghada, Egypt*
20. 2nd World Wide Meeting of Young Academies, Stockholm, Sweden 14-17 Nov. 2015
21. 17th APCCC, Jan 27-30, 2016 at Mumbai, India.
22. Next Einstein Forum Global Gathering 8-10 March, Dakar, Senegal.
23. The 2016 Regional Young Scientists Conference, "Inclusive growth and sustainable development: setting an Agenda for Young Academies and Professionals in Africa" 23rd-24th August 2016, Lagos, Nigeria.
24. 5th International Conference on Corrosion Mitigation and Surface Protection Technologies 12-15 December, 2016, *Steigenberger hotel – Luxor, Egypt*.

Community and Society

- Board member of the Egyptian Corrosion Society since 1997 till now.

Since, we aim to serve the community through science. By connecting the industry with academia through different activities, such as annual conference on important hot topics of industry. Also, regular workshops and training in different important fields of industry are arranged. Monthly lectures are also conducted by the corrosion society.

- **Moderator for the ESIS (European Structural Integrity Society) “social network for corrosion and life prediction in industry in the Middle East “since Oct. 2008 till now.**

We try in this association to help and serve the Middle East societies to avoid the bad impact of industry on its environment and health.

- **Member of the social association in faculty of Science, Cairo University since 2007 till now.**

- **Co-Chair of EYAS (Egyptian Young Academy of Science, since 2014) till now.**

-AS one of the STI bodies in Egypt, EYAS mission is revolving around creation of an enabling and encouraging environment for young scientists in Egypt's STI system as the main pillar of a knowledge-based economy.

-EYAS focuses on activities of major concern for young scientists, specifically issues at the science-society interface such as scientific communication, education and public policy. The Academy supports career development for young scientists.

-And it was our great honor to ***meet the president of Egypt/ Abd EL-Fattah El Sisi*** and get a full support from him to the Egyptian Young Academy to move forward in its objectives.

- **Ambassador of Egypt in NEF (Next Einstein Forum), since February 2016.**

- Member of the Royal Society of Chemistry since 2016.**

- Judger in the 3rd Blastoff 2016, Egyptian Science and Engineering Fair.**

- Faculty Coordinator in the anti harassment unit in Cairo University**

- Member of EKB Awareness Committee in Faculty of Science, Cairo University**

Editorial Board Member for:
Frontiers in Applied Chemistry Journal

Reviewer for international scientific journals:

- Material Chemistry and Physics
- Royal chemical Society (RCS)
- Engineering Science and Technology
- Journal of Metallurgical Engineering

Workshops:

- 1- Credit hours, May 2006, Cairo University.
- 2- Course Design, Dec. 2006, Cairo University.
- 3- Thinking Skills, Sept. 2007, Cairo University.
- 4- Using Technology in Teaching, Sept. 2009, Cairo University.
- 5- Time Management, Aug. 2006, Cairo University.
- 6- Research Projects preparation, Nov. 2006, Cairo University.
- 7- Writing Scientific Researches and International Publications, Nov. 2006, Cairo University.
- 8- Management of Research Team, Dec. 2010, Cairo University.
- 9- “Corrosion mitigation in oil and gas production” workshop 23-26 December 2013 Seagull Hotel – Hurghada Egypt.
- 10- Renewable Energy Challenges and Opportunities in Egypt (RECO) workshop, 2014 May 10, 2014, Cairo, Egypt E-JUST, Academy of scientific research and technology
- 11- Preparation of exam paper and methods of evaluation, Feb. 2015, Cairo University
- 12- New methodology of teaching, July 2015, Cairo University.
- 13- Scientific conferences organization, August 2015, Cairo University.
- 14- Communication skills in education, August 2015, Cairo University.
- 15- Quality requirements in teaching Sep. 2015 Cairo University.
- 16- German Science Days for Outstanding Egyptian Doctoral and Postdoctoral Candidates 16 May 2015, at the Fairmont Hotel Nile City, Cairo.

- 17- Law and financial managements in university, Jan.2016, Cairo University.
- 18- -THE SCIENCE ADVICE WORKSHOP IN Cape Town, SOUTH AFRICA, 26–27 FEBRUARY 2016.
- 19- 5TH AIN SHAMS UNIVERSITY WORKSHOP ON OILFIELD CHEMISTRY 21. April 2016.
- 20- Knowledge transfer and development of nanotechnology in solar energy 27 Octb. 2016, National Research Center, Egypt.

Awards:

- 1- **Prize of Prof. Dr. Venice Gouda for science and innovation in technology** 2009.
- 2- **Misr El Kheir publication award** Dec. 2011.
- 3- **Cairo University Scientific Publication Awards** (2007, 2008, 2009, 2010, 2011, And 2016).
- 4-**First Award for Distinguished Scientific Researches** Offered by MFK Foundation and BUE Sept. 2014

Projects:

- **2012 - A research project between eni e&p Division, in cooperation with Venezia Technologie-Venice-Italy and Cairo University**, entitled: “Investigation of the properties of surface iron carbonate scales formed during simulated and in service corrosion processes by electrochemical techniques” (Done).
- **2015 - Research project by Science faculty-Cairo University**, entitled” *Preparation and characterization of conducting polymers for solar cell applications” (In progress).*