Brief Resume

Ass. Prof. Sherine Awad Abdel Kader Awad

Date of Birth: 1st. Oct.1975
Nationality: Egyptian
Residence: Cairo, Egypt.
Current Address: Emarat Rabaa Elestesmary beside air defense house, El Nozha street, Nasr City, Cairo, Egypt.
Email : sherine_awad@Yahoo.com
shereen.awad@bhit.bu.edu.eg

Cell Phone: 00201119350511
00201021762351

Recent Employer : Benha Faculty of Engineering, Benha University, Benha, Egypt
Recent position: Associate Professor of chemical engineering.
Previous position: Senior Lecturer of chemical engineering**,**
Fundamental and Applied Engineering Sciences Department.

Education:

B. Sc. Chemical Engineering, Minia University, 1997.
M Sc, Chemical Engineering, Minia University, April, 2002
M Sc subject: "Wastes Management and Energy Recovery from Wastes".
Ph.D., Chemical Engineering, Cairo University, June, 2008
Ph.D., subject: "Corrosion of Some Stainless and Duplex Stainless Steel Alloys in Phosphoric Acid Plants".

Research Interest:

- Oil Recovery processes, Extraction of heavy crude oil, decarbonize offshore oil: capturing CO_2, gas production, oil spill remediation, nanofluids.
- Discharge of ANG storage, Hydrogen storage technologies, Natural Gas Liquefaction Processes.
- Alloys Corrosion: Duplex and super duplex, and its manufacture, development and application in plants.
- Electrochemical Engineering, Metal protection, Developing new corrosion inhibitors from organic polymers.
- Cement Production, Enhancing the physical, thermal and mechanical properties of cement and concrete.
- Waste Water Treatment, Removal of organic and inorganic pollutants from waste water.

Experience:

Research: 26 years
Teaching: 4 years as a lecturer at Minia Faculty of Engineering, Minia University, (1998-2002),
5 years as a Lecturer at Benha faculty of engineering, Benha University, (2003-2008).
8 years as Senior lecturer at Benha faculty of engineering, Benha University, (2008-2016).

8 years as Associate professor at Benha faculty of engineering, Benha University, (2017-present).

Teaching courses:

- Unit Operation for final year students, 1998-2002 (Chemical Engineering Dept., Minia University, Minia, Egypt).
- Economics for forth year students, 1998-2002 (Chemical Engineering Dept., Minia University, Minia, Egypt).
- Solar Energy for third year students, 1998-2002 (Chemical Engineering Dept., Minia University, Minia, Egypt).
- Petroleum Industry for forth year students, 1998-2002 (Chemical Engineering Dept., Minia University, Minia, Egypt).
- Acid & Base, for first year students, 2002-2025 (Basic Engineering Sciences Dep., Benha University, Benha, Egypt).
- Thermodynamics, for first year students, 2002-2025
- (Basic Engineering Sciences Dep., Benha University, Benha, Egypt).
- Reaction Kinetics and Equilibrium, for first year students, 2002-2025 (Basic Engineering Sciences Dep., Benha University, Benha, Egypt).
- Electrochemistry and Corrosion, for first year students, 2002-2025 (Basic Engineering Sciences Dep., Benha University, Benha, Egypt).
- Engineering chemistry, 2008- present. (Basic Engineering Sciences Dep., Benha University, Benha, Egypt).
- Cement Industry, Polymers, Lubricants for first year students, 2002-2025 (Basic Engineering Sciences Dep., Benha University, Benha, Egypt).

Courses could be taught:

*Electrochemistry & corrosion
* Material science
* Oil industry
* Renewable Energy
* Natural Gas industry
* General Chemistry
* Reaction Kinetics & Equilibrium
* Cement industry
* Polymers

Research Experience:

- Stainless steel alloys type's, characterization and application.
- Oil Recovery processes
- Extraction of heavy crude oil.
- Decarbonize offshore oil: capturing CO_2.
- Gas production: Hydrogen gas storage.
- Oil spill remediation.
- Synthesis of nanofluids.
- Discharge of ANG storage, Hydrogen storage technologies, Natural Gas Liquefaction Processes.
- Synthesis of Surfactants.
- Solid waste management, flue gas treatment, heat recovery from wastes.

- Wastewater treatment, removal of inorganic and organic pollutants by novel methods.
- Production new types of polymers used as corrosion inhibitors.
- Production new types of cement for use in concrete.

Current Research Activities:

Oil Recovery processes, Extraction of heavy crude oil, decarbonize offshore oil: capturing CO_2, oil spill remediation, nanofluids.

Metal alloy development, different types of inhibitors for metal protection. Hydrogen Storage as apart of Bio-fuel production Project, chemical Process Flow Sheet development, employing up to date technology.

References:

1. **Prof\ Aghareed Mahmoud Tayeb,**
   Present position: professor of chemical Engineering at Minia University, Egypt.
   Telephone: 002 0105768686 (mobile)
   Email: aghareed1@yahoo.com
   Address: Chemical Engineering Department, Faculty of Engineering, El Minia, Egypt.

2. **Prof\ Eman Aly Ashour,**
   Present position: professor of chemical Engineering at Minia University, Egypt.
   Telephone: 002 01018894511 (mobile)
   Email: emanalyashour@yahoo.com
   Address: Chemical Engineering Department, Faculty of Engineering, El Minia, Egypt

3. **Prof\Omar El-Farooq**
   Present position: professor of chemical Engineering at Cairo University, Egypt.
   Telephone: 002 0106537751 (mobile)
   Email: omarelfaroukabdelsalam@yahoo.com
   Address: Chemical Engineering Department, Faculty of Engineering, Cairo University, Giza, Egypt.

List of Publications:

1. "Corrosion of Some Stainless and Duplex Stainless Steel Alloys in Phosphoric acid Plants", Indian Journal Materials Science, vol. 4, Issue 4, 2008.
2. Enhanced Discharge of ANG storage for vehicle use, International Journal of Engineering & Technology, 09 (09), 381-389, 2009. http://www.ijens.org/IJET%20Vol%2009%20Issue%2009.html
3. Technical Evaluation of current Hydrogen storage technologies for vehicles, Journal of applied sciences, 10 (12):1151-1156,2010.
4. Ceramic materials for Adsorptive Natural Gas storage for Vehicles, INTERCERAM, 59(2010)[3].
5. Technology Review of Natural Gas Liquefaction Processes, Journal of Applied Sciences ISSN 1812-5664/DOI: 103923-jas.2011.
6. Behavior of composite cement paste containing silica nano-particles at elevated temperature, *Construction and Building Materials,* Elsevier, 70, pp 339-350 2014.
7. Removal of Ni (II) ions from aqueous solutions using fixed-bed ion exchange column technique, *Journal of Taiwan Institute of Chemical Engineers*, Elsevier

(SCOPUS, ISI). 43(1), pp 40-45 2012.

8. Novel method for breakthrough removal of Azo dye from aqueous environment using integrated coagulation and Fenton process**,** International Journal of Photochemistry, Volume 2014, Article ID 934850.
9. Synthesis of some polymers containing Heterocyclic rings corrosion Inhibitors of Mild Steel, Egyptian journal of chemistry, Published by National Information and Documentation centre (NIDPD), 36, 2016.
10. Ceramic materials for adsorptive natural gas storage for vehicles, part II, *International ceramic review journal,INTERCERAM*, 59 (5), 281-286, 2010.

11-Techniques used in LNG production plants continue to develop and adapt", *LNG journal*, June 2010, pp 32-34

12- Synthesis and inhibiting action of some Quinazoline derivatives on the corrosion of Mild Steel in hydrochloric acid, Egyptian journal of chemistry, Published by National Information and Documentation centre (NIDPD), 31, 2016. http:www.geocities.com\egyptchemsoc\english.html

13- Mohamed H., H. El Didamony, I.M. Helmy, S. Awad, N. S. Ibrahim, " Superior-Mechanical, microstructure properties of Composite Cement incorporating SiO2-nano particles, Egyptian Journal of Chemistry, V(63), Article (7), Issue (6), June 2020.

14- W.I. Eldougdoug, Shereen A., Abdelkader, N. Fouad, Basma Khedr, A.Y. El-Etre, "Inhibition of Steel Acid Corrosion by Newly Synthesized Organic Compound", Journal of Basic and Environmental Science", 7, 2020, 79-86.

15- Mohamed H., I.M. Helmy, S. Awad, N. S. Ibrahim, " Performance of Silica-Nano-Particles on the Physicochemical, and, Microscopic Characteristics of blended and composite Cement, Journal of Ceramics- silicaty, 10.13168/Cs. 2020-2021.

16- basma sobhy ibrahime, sherine awad, essam kishar, Mohamed heikal **, Effect of sulphate, chloride and elevated temperature on the properties of Egyptian slag binder, Journal of scientific research in science , 2021, 38, (1): 139-16**
ISSN: 2356-8364

17- Sh.M. Alazrak [1]; S. Awad[2]; A.A. Khalil[1]; W. El-Dougdoug , Synthesis and Evaluation of New Cationic Polymeric Surfactant Based on N-Phthalimidomethyl Methacrylat, Egyptian journal of chemistry,ptian Journal of Chemistry, **Article 60**, Volume 64, Issue 7, July 2021, Page 3861-387, ISSN04492285, DOI 10.21608/EJCHEM.2021, 54791.3224.

18- Rahim SA , Eldemerdash U. and Awad S, Assessment of new cation exchange resin for nickel (II) ion continuous, removal from aquatic environment using fixed bed technique Journal of Water Science and Engineering, Volume 1 Issue 5 - 2020.

19- LenguPeter Tuok , Marwa Elkady, Abdelrahman Zkria, Tsuyoshi Yoshitake , Sherine A. Abdelkader , Doaa F. Seyam , AA El-Moneim , Ahmed M.R. Fath El-Bab , Usama Nour Eldemerdash, Experimental investigation of copper oxide nanofluids for enhanced oil recovery in the presence of cationic surfactant using a microfluidic model,chemical Engineering Journal, Volume 488, 15 May 2024, 151011

20- Usama N. Eldemerdash1,, Taha E. Farrag, Sherine A. Abdelkader, Modified Activated Carbon for Adsorptive Removal of Para-Nitrophenol from Industrial Wastewater (IWW), PORT SAID ENGINEERING RESEARCH JOURNAL Faculty of Engineering - Port Said University Volume 27 pp: 1-7.

21- Usama Nour Eldemerdash, Sherine Awad Abdelkader, Offshore CO_2 Capture Using Ocean-Based Amine Absorption: Design of Floating Capture Units for Carbon Emissions from Marine Platforms, International Conference on Transdisciplinary Solutions for Ocean Challenges (ICTSOC) 22-23 Oct. 2025 National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan.

22- Lengu Peter Tuok · Marwa Elkady · Abdelrahman Zkria · Yoshitake Tsuyoshi · Sherine A. Abdelkader · Doaa Fouad Seyam · Usama Nour Eldemerdash,, CuO/TiO2 nanofluids-based remediation of oil spills in aqueous environment: a promising approach to mitigate soil pollution, Nanotechnology for Environmental Engineering (2025) 10:60 https://doi.org/10.1007/s41204-025-00456-2.

23- A. Elaraby, Doaa F. Seyam & Sherine A.Abdelkader, Multidimensional insights of electrochemical and quantum investigations of morpholinium cationic surfactants as corrosion inhibitors for carbon steel in acidic solution A. Scientific Reports | (2025) 15:20175 | https://doi.org/10.1038/s41598-025-05836-x 1