

## CURRICULUM VITAE

### GENERAL INFORMATION

**Name:** Mahmoud  
**Surname:** Mohamed Mohamed Abdel daiem  
**Gender:** Male  
**Place and date of birth:** Zagazig - Egypt, 4<sup>th</sup> Junary 1983  
**Current profession:** Assistant professor at the Civil Engineering Department, Engineering College, Shaqra University, KSA.  
**Permanence profession:** Full professor at Environmental Engineering Department, Faculty of Engineering, Zagazig University, Egypt.  
**E-mail address:** [MMAbdeldaiem@eng.zu.edu.eg](mailto:MMAbdeldaiem@eng.zu.edu.eg), [engdaim@su.edu.sa](mailto:engdaim@su.edu.sa)  
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**Nationality:** Egyptian



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### RESEARCH INTERESTS:

My scientific interest is related to the preparation and application of carbon materials in different areas such as **a) environment** (physical, biological, chemical, advanced oxidation/reduction processes, and integrated technologies between them, and finally solid waste management and treatment), **b) electronic** (energy storage, electronic conductivity, electrodes ...etc.), **c) construction** (partial replacement of cement in concrete and pavement layers, soil amendment...etc.). Furthermore, I am interested in the **sustainable** conversation of **biomass residues** to **biofuel** via different techniques, studying the **life cycle assessment** (LCA), supply chain, **environmental impact assessment** (EIA), measuring the **indicators of Sustainable Development Goals** (SDGs), and **circular economy**-related to energetic and environmental perspectives. Moreover, I have a good experience in **laboratory practices** related to Environmental Analytical Chemistry, ecotoxicology, and microbiology. Moreover, I am a reviewer in some prestigious journals related to Environmental Engineering topics; all my scientific publications serve the **SDGs (06, 07, 08, 09, 11, 12, 13, and 17)**.



### EDUCATION:

- Post-doctoral researcher at Inorganic Chemistry Department, Granada University (UGR), Granada, Spain, November 2012- to April 2013 and September 2013 to January 2015.
- Ph.D. degree from Civil Eng. Dept., UGR, Granada, Spain, from October 2008 to October 2012. **Ph.D.'s title** *'Integrated technologies based on the use of activated carbon and radiation to remove contaminants present in landfill leachates'* **Excellent with Honor Degree.**



- Diploma of advanced studies (Das) from the Civil Engineering Department, UGR, Granada, Spain, October 2008 to July 2010. Degree's title '***Adsorption of organic micropollutants present in landfill leachate on activated carbon.***' **Excellent with Honor Degree.**

- B.Sc. from Civil Engineering Department, Zagazig University (ZU), Zagazig, Egypt, September 2000 to July 2005. **Very Good with Honor Degree, 8.27/10** (4<sup>th</sup> among 550 students)

### **LANGUAGES:**

<b>Arabic:</b>	Native language
<b>English:</b>	(Excellent Reading, Speaking, and Writing)
<b>Spanish:</b>	(Very Good Reading, Speaking, and Writing)

### **ACADEMIC POSITIONS**

- Quality and Academic Accreditation consultant at Kingdom University (KU) in Bahrain Kingdom, November 2023 to present.
- Supervisor of ***Academic Accreditation Unit*** at College of Engineering, SU, Dawadmi, KSA, November 2019 to June 2022.
- Deputy Head of Civil Engineering Department for Academic Accreditation and Development Affairs at College of Engineering, SU, Dawadmi, KSA, June 2019 to present.
- Full professor at the Environmental Engineering Department, ZU, Zagazig, Egypt, November 2023 to present.
- Associate professor at the Environmental Engineering Department, ZU, Zagazig, Egypt, October 2018 to November 2023.
- Supervisor of ***Research Support Unit*** at College of Engineering, SU, Dawadmi, KSA, March 2018 to November 2019.
- Assistant professor at the Civil Engineering Department, SU, Dawadmi, KSA, December 2017 to present.
- Member of the Higher Committee for Research Equipment Inventory, ZU, representative for Faculty of Engineering from June to December 2017
- Coordinator for workshops prepared at the Environmental Engineering Department, ZU, Zagazig, Egypt, July 2016 to December 2017
- Assistant professor, part-time, at Faculty of Engineering & Technology, Arab Academy for Science, Technology & Maritime Transport (AASTMT), Cairo, Egypt, June to August 2016.
- Assistant professor at the Environmental Engineering Department, ZU, Zagazig, Egypt, May 2013 to September 2018.
- Assistant lecturer at the Environmental Engineering Department, ZU, Zagazig, Egypt 2005 to 2008.
- Reviewer for the following journals: Chemical Engineering Journal, Environment International, Biomass and Bioenergy, Journal of Colloid and Interface Science, Journal of Environmental Management, Process Safety and Environmental Protection, Science of the Total Environment, Journal of Cleaner Production
- Coordinator of the scientific research standard at Faculty of Engineering, ZU, Zagazig, Egypt, May to August 2013 and September 2015 to November 2017.

### **INTERNATIONAL COOPERATION:**

- **Co-Principal Investigator** on a funded project titled "**Smart and Sustainable Management of Agricultural Waste in Rural Areas: A Roadmap for Circular Economy and Living Lab**", awarded by Prince Mohammad Bin Fahd University for



- "Best Joint Scientific Project Between Arab Universities."** This collaborative project involves The British University in Egypt (Egypt), Shaqra University (Saudi Arabia), Kasdi Merbah University - Ouargla (Algeria), and international partner, the University of Lincoln (UK). Funded by the **Association of Arab Universities**, the project runs from **October 2024 to October 2026, with a budget of \$48,000.**
- **Co-Principal Investigator** for the funded project (DGSSR-2023-02-02229) titled **"Sustainable Wastewater Remediation Using Microalgae and Nanotechnology"**. Funded by the **Deanship of Graduate Studies and Scientific Research at Jouf University, Saudi Arabia**, from **September 2023 to September 2024, with a budget of 20,000 SAR.**
  - **Co-Principal Investigator** for the funded project (DGSSR-2023-02-02227) titled **"Investigation of Self-Purification of Drainage Water from Hydracids and Environmental Perspectives"**. Funded by the **Deanship of Graduate Studies and Scientific Research at Jouf University, Saudi Arabia**, from **September 2023 to September 2024, with a budget of 20,000 SAR.**
  - **Co-Principal Investigator** for the funded project (UB-Promising-37-1445) titled **"Recycling of Sewage Waste to Activated Carbons from Wastewater Treatment"**. Funded by the **Deanship of Graduate Studies and Scientific Research at the University of Bisha, Saudi Arabia**, from **October 2023 to October 2024, with a budget of 60,000 SAR.**
  - **Co-Principal Investigator** for the funded project (223202) titled **"Adsorption/Bio-Sorption of Micro Pollutants from Aqueous Solution onto Activated Carbon in the Jouf Region"**. Funded by the **Ministry of Education in Saudi Arabia**, from **January to December 2023, with a budget of 100,000 SAR.**
  - **Co-Principal Investigator** for the funded project (DSR2022-RG-0106) titled **"Water Quality and Solar Desalination"**. Funded by the **Deanship of Scientific Research at Jouf University, Saudi Arabia**, from **December 2021 to December 2023, with a budget of 120,000 SAR.**
  - **Principal Investigator** for the funded project (D251219/G01/N33) titled **"Enhancing Properties of Biomass Agricultural Residues to Increase Renewable Energy Production (Case Study: Al Dawadmy Governorate) "**. Funded by the **Deanship of Scientific Research at Shaqra University, Saudi Arabia**, from **December 2019 to December 2021, with a budget of 139,000 SAR.**
  - Ambassador of Sustainability and member in Impact Youth Sustainability worldwide.
  - Member of the Engineering Syndicate of Egypt.
  - Member of the Spanish Carbon Group GEC (Grupo Español del Carbón)
  - Member at Research group "Environmental Technology" under the supervision of **Prof. Montserrat Zamorano Toro** at the School of Engineering, Civil Engineering Department, **UGR**, Granada, Spain, since October 2008 to present.
  - Member at Research group "Carbon Materials for Advanced Treatments of Water and Wastewater" under the supervision of **Prof. José Rivera-Utrilla** at the Faculty of Science, Inorganic Chemistry Department, **UGR**, Granada, Spain, since October 2008 to present.
  - Participated in staff mobility for teaching from partner counties in the framework of the Erasmus + program **KAI –Agreement Number: 2017-1-RO01-KA107-036041** at Petru Maior, the University of Tirgu Mures (**UTM**) in Romania (**04-10 October 2017**). Contribution ID: 2c04fbf9-56ad-4120-883d-83d78e12f243



- Participated in the EU project under **TEMPUS JEP-31007-2003** programs with Germany and Italy with the title “E-learning system for water and environmental studies” (from December 2005 to August 2007). Trained two times at **ZU, Zagazig, Egypt**, and the third one was at **RWTH Aachen University (AU), Aachen, Germany** (July 2007).
- Member at Centre for Environmental Studies and Consultation (**CESC**), Suez Canal University (**SCU**), Ismailia, Egypt, 2007 to 2013.
- In collaborate with Faculty of Science, Faculty of Pharmacy, and Engineering School at **UGR, Spain**, Faculty of Science at **SCU, Egypt**, Faculty of Engineering & Technology at **AASTMT, Egypt**, and Faculty of Engineering, **AU, Germany**, Faculty of Engineering, Petru Maior at **UTM, Romania**, and college of Engineering, at **SU, Saudi Arabia**.

#### **EMPLOYMENT HISTORY:**

- October 2015 – December 2016: Part-time, **Enviro Civic Company** as Expert in **Environmental Engineering Projects**, Cairo, Egypt.
- January 2007 – July 2008: Part-time, **Enviro Civic Company** as **Environmental Engineer**, Cairo, Egypt.
- December 2005 - October 2006: Part-time, **Pyramids Consultant Engineering** as **Environmental and Civil Engineer**, Zagazig, Egypt.
- July 2005 - December 2005: Part-time, **Consultant for Investigation & Design** as **Civil Engineer**, Cairo, Egypt.

#### **PUBLICATIONS:**

1. **Efficient Removal of Phenol Red Dye from Polluted Water Using Sustainable Low-Cost Sewage Sludge Activated Carbon: Adsorption and Reusability Studies**, Salha M. Aljubiri, Ayman A. O. Younes, Eid H. Alosaimi, **Mahmoud M. Abdel daiem**, Enas T. Abdel-Salam, Walaa H. El-Shwiniy. *Molecules* 2024, 29(24), 5865, **(ISI, IF: 4.900)**
2. **Effect of physical and chemical treatment on the characteristics of wheat straw as fuel for energy applications** Noha Said, Raid Alrowais, **Mahmoud M. Abdel-Daiem**. *BioResources*, 2024, 19(4), 9531–9543. **(ISI, IF: 1.747)**
3. **Recycling of Sewage Sludge: Synthesis and Application of Sludge-Based Activated Carbon in the Efficient Removal of Cadmium (II) and Lead (II) from Wastewater**, Salha M. Aljubiri, Ayman A. O. Younes, Eid H. Alosaimi, **Mahmoud M. Abdel daiem**, Enas T. Abdel-Salam, Walaa H. El-Shwiniy. *International Journal of Molecular Sciences*, 2024, 25(18), 9866, **(ISI, IF: 4.900)**
4. **Removal of Cyantraniliprole from Aquatic Environments by Chlamydomonas reinhardtii**, Raid Alrowais, Eldesoky Sabri Ibrahim, Dalia E. El-Hefny, Rania M. A. Helmy, Rania Saber Youse, Shady Abdel Mottaleb, **Mahmoud M. Abdel daiem**, Wassef Ounaies, Bandar Alwushayh, Mohamed Mahmoud-Aly. *Bioresources* 2024, 19 (3), 6653-6669, **(ISI, IF: 1.747)**
5. **Effect of Alkaline Pretreatment on the Characteristics of Barley Straw and Modeling of Methane Production via Codigestion of Pretreated Straw with Sewage Sludge**, Raid Alrowais, **Mahmoud M. Abdel daiem**, Ahmed M. Helmi, Basheer M. Nasef, Ananda Rao Hari, Pascal Saikaly Noha Said. *Bioresources* 2024, 19 (2), 2174- 2200, **(ISI, IF: 1.747)**
6. **Influences of straw alkaline pretreatment on biogas production and digestate characteristics: artificial neural network and multivariate statistical techniques**,





- Raid Alrowais, Noha Said, Mohamed Mahmoud-Aly, Ahmed M. Helmi, Basheer M. Nasef, **Mahmoud M. Abdel daiem**. Environmental Science and Pollution Research, 2024, 31(9):13638-13655 (ISI, IF: 5.800)
7. **Adsorption and Kinetics Modelling for Chromium (Cr<sup>6+</sup>) Uptake from Contaminated Water by Quaternized Date Palm Waste**, Raid Alrowais, Bashir MT, Aftab Ahmad Khan, Manahil Bashir, Inam Abbas, **Mahmoud M. Abdel daiem**, Water, 2024, 16(2), 294 (ISI, IF: 3.530)
  8. **Activated Carbon Fabricated from Biomass for Adsorption/Bio-Adsorption of 2,4-D and MCPA: Kinetics, Isotherms, and Artificial Neural Network Modeling**, Raid Alrowais, **Mahmoud M. Abdel daiem**, Basheer M. Nasef, Noha Said, Sustainability 2024, 16(1), 299 (ISI, IF: 3.900)
  9. **Enhanced detoxification methods for the safe reuse of treated olive mill wastewater in irrigation**, Raid Alrowais, Rania Saber Yousef, Osama konsowa Ahmed, Mohamed Mahmoud-Aly, **Mahmoud M. Abdel daiem**, Noha Said, Environmental Sciences Europe, 2023, 35 (1), 95 (ISI, IF: 5.900).
  10. **Groundwater Quality Assessment for Drinking and Irrigation Purposes at Al-Jouf Area in KSA Using Artificial Neural Network, GIS, and Multivariate Statistical Techniques**, Raid Alrowais, **Mahmoud M. Abdel daiem**, Renyuan Li, Mohamed Ashraf Maklad, Ahmed M. Helmi, Basheer M. Nasef, Noha Said. Water, 2023, 15 (16), 2982 (ISI, IF: 3.530)
  11. **Optimization and Modelling the Mechanical Performance of Date Palm Fiber-Reinforced Concrete Incorporating Powdered Activation Carbon Using Response Surface Methodology**, Adamu, Musa, Ibrahim, Yasser, **Abdel daiem, Mahmoud M.**, Alanazi, Hani, Elaloui, Oussama, Ali, Nageh M. Materials, 2023, 16, 2977, (ISI, IF: 3.400)
  12. **Comparing the effect of mesophilic and thermophilic anaerobic co-digestion for sustainable biogas production: An experimental and recurrent neural network model study**, Raid Alrowais, Noha Said, Ali Al-Otaibi, Ahmed Y. Hatata, Mohamed A. Essa, **Mahmoud M. Abdel daiem**, Journal of Cleaner Production, 2023, 392, 136248, (ISI, IF: 11.047)
  13. **Adsorption of Diphenolic Acid from Contaminated Water onto Commercial and Prepared Activated Carbons from Wheat Straw**, Raid Alrowais, Noha Said, Muhammad Tariq Bashir, Ahmed Ghazy, Bandar Alwushayh, **Mahmoud M. Abdel daiem**. Water 2023, 15 (3), 555 (ISI, IF: 3.530)
  14. **Numerical investigation of the hydraulic impacts induced by a bioreactor installed in a contaminated waterway**, Raid Alrowais, Ashraf Jatwary, **Mahmoud M. Abdel daiem**, Ahmed Ghazy, Bandar Alwushayh, Mohammad Akrami, Muhammad Tariq Bashir, Fayez Alanazi, Md. Alhaz Uddin, Elsayed Elkamhawy. Water 2023, 15(1), 117 (ISI, IF: 3.530)
  15. **Assessment and Contribution of Biomass Residues to Renewable Energy Resources in Egypt**. In: The Handbook of Environmental Chemistry. Springer, Berlin, Heidelberg. **Abdel daiem, M.M.**, Said, N. (2023).
  16. **Identifying the Barriers to Sustainable Management of Construction and Demolition Waste in Developed and Developing Countries**, Ali Al-Otaibi, Patrick Aaniamenga Bowan, **Mahmoud M. Abdel daiem**, Noha Said, John Obas Ebohon, Aasem Alabdullatief, Essa Al-Enazi, Greg Watts. Sustainability 2022, 14(13), 7532, 1-17 (ISI, IF: 3.251)
  17. **Modeling and Optimization of Semi-continuous Anaerobic Co-digestion of Activated Sludge and Wheat Straw using Nonlinear Autoregressive Exogenous**



- Neural Network and Seagull Algorithm, Mahmoud M. Abdel daiem, Ahmed Hatata, Noha Said. Energy, 2022, 241-122939 (ISI, IF: 7.147)**
18. **Energetic, Economic, and Environmental Perspectives of Power Generation from Residual Biomass in Saudi Arabia, Mahmoud M. Abdel daiem, Noha Said, Alexandria Engineering Journal, 2022, 61 (5), 3351-3364 (ISI, IF: 3.732)**
  19. **Prediction of biogas production from anaerobic Co-digestion of Waste Activated sludge and wheat straw using two-dimensional mathematical models and an artificial neural network, Mahmoud M. Abdel daiem, Ahmed Hatata, Osama H. Galal, Noha Said, Dalia Ahmed. Renewable Energy, 2021, 178, 226-240 (ISI, IF: 8.000)**
  20. **Sustainable waste management of medical waste in African developing countries: A narrative review, Jade Megan Chisholm, Reza Zamani, Abdelazim M Negm, Noha Said, Mahmoud M Abdel daiem, Mahdieh Dibaj, Mohammad Akrami. Waste Management & Research: The Journal for a Sustainable Circular Economy, 2021, 39 (9), 1149-1163 (ISI, IF: 2.771)**
  21. **An initial study about the effect of activated carbon nano-sheets from residual biomass of olive trees pellets on the properties of alkali-activated slag pastes, Mahmoud M. Abdel daiem, Alaa M. Rashad, Noha Said, Hamdy A. Abdel-Gawwad. Journal of Building Engineering, 2021, 44, 102661 (ISI, IF: 3.379)**
  22. **Application of an artificial neural network for the improvement of agricultural drainage water quality using a submerged biofilter, Mahmoud M. Abdel daiem, Ahmed Hatata, Emad H. El-Gohary, Hany F. Abd-Elhamid, Noha Said. Environmental Science and Pollution Research, 2021, 28(5), 5854-5866 (ISI, IF: 3.056)**
  23. **Structure- properties relationship in activated carbon synthesized from rice straw for electronic application, Mahmoud M. Abdel daiem, Abdullah A. Alotaibi, Eid M. Alosime, Boubaker Zaidi, Noha Said, Polich Journal of Environmental Studies, 2020, 29 (5), 3535-3547 (ISI, IF: 1.186)**
  24. **The effects of submerged biofilter on water quality of polluted drains in Egypt, Mahmoud M. Abdel Daiem, Noha Said, Emad H. El-Gohary, Ahmed Hamdi Mansi, Hany F. Abd-Elhamid, International Journal of Civil and Structural Engineering, 2020, 6 (2), 52-55**
  25. **Rice straw characteristics and its potential energy in Valencia (Spain), Noha Said, Montserrat Zamorano Toro, Ahmed Hamdi Mansi, Mahmoud M. Abdel Daiem, International Journal of Advancements in Mechanical and Aeronautical Engineering, 2020, 6 (2), 15-19.**
  26. **Analysis of Energy and Greenhouse Gas Emissions of Rice Straw to Energy Chain in Egypt, Noha Said, Adel Alblawi, Ibrahim A. Hendy, Mahmoud M. Abdel Daiem, Bioresources, 2020, 15 (1), 1510-1520 (ISI, IF: 1.396)**
  27. **Adsorption Mechanism and Modelling of Hydrocarbon Contaminants onto Rice Straw Activated Carbons, Mahmoud M. Abdel daiem, Manuel Sánchez-Polo, Noha Said, Ahmed S. Rashed, Nehal Kamal, Polish Journal of Chemical Technology, 2019, 21 (4), 1-12, (ISI, IF: 0.975)**
  28. **Potential energy from residual biomass of rice straw and sewage sludge in Egypt, Mahmoud M. Abdel daiem, Noha Said, Abdelazim M. Negm, Procedia Manufacturing, 22 (2018) 818–825. (SJR, IF: 0.313)**
  29. **Removal of compounds used as plasticisers and herbicides from water by means of gamma irradiation, José Rivera-Utrilla, Mahmoud M. Abdel daiem, Manuel Sánchez-Polo, Raúl Ocampo-Pérez, Jesús J. López-Peñalver, Inmaculada Velo-**



- Galaa, Antonio J. Mota. Science of the Total Environment, 2016, 9–570, 518–526 (ISI, IF: 4.90)
30. **Anaerobic co-digestion of wastewater activated sludge and rice straw in batch and semi-continuous modes**, Nabil N. Atta, Amro A. El-Baz, Noha Said, Mahmoud M. Abdel daiem, Journal of Fundamentals of Renewable Energy and Applications, 2016, 6 (2), 01-07 (Without IF)
  31. **Single, competitive, and dynamic adsorption on activated carbon of compounds used as plasticisers and herbicides**. Mahmoud M. Abdel daiem, José Rivera-Utrilla., Raul Ocampo-Pérez., Manuel Sánchez-Polo, Science of the Total Environment, 2015, 537, 335-342 (ISI, IF: 3.976)
  32. **Influence of densification parameters on quality properties of rice straw pellets**, Noha Said, Mahmoud M. Abdel daiem, Angela García-Maravera, Montserrat Zamorano, Fuel Processing Technology, 2015, 138, 56-64 (ISI, IF: 3.847)
  33. **Landfills and Recycling Centers: Processing Systems, Impact on the Environment and Adverse Health Effects**, Chapter 4, **Integrated Technologies Based on the use of Activated Carbon and Radiation to Remove Contaminants Present in Landfill Leachates**, R. Ocampo-Perez, J. Rivera-Utrilla, M. M. Abdel daiem, M. Sánchez-Polo, Editor Novapublishers, 2015, 69-109. ISBN: 978-1-63463-824-1 (Book Chapter)
  34. **Reduction of ash sintering precursor components in rice straw by water washing**, Noha Said, Mahmoud M. Abdel daiem, Angela García-Maravera, Montserrat Zamorano, Bioresources, 2014, 9 (4), 6756-6764 (ISI, IF: 1.425)
  35. **Sources, Principle Pathways and Mechanisms and Damage/Repair Capabilities**, Chapter 10, **Degradation of emerging aromatic micropollutants by UV-based oxidation processes**, M. Sánchez-Polo, J. Rivera-Utrilla, R. Ocampo-Perez, J.J. López-Peñalver, I. Velo-Gala, M. M. Abdel daiem, Editor Novapublishers, 2014, 221-250. ISBN: 978-1-63321-093-6 (Book Chapter)
  36. **Enhancing Wastewater Treatment by Commercial and Native Microbial Inocula with Factorial Design**, Sahar El-Shatoury, Amro Elbaz, Mahmoud Abdel daiem, Diaa El-Monayeri. Life Science Journal, 2014, 11 (7), 736-742 (ISI, IF: 1.650)
  37. **Comparative study of the photodegradation of bisphenol A by HO<sup>•</sup>, SO<sub>4</sub><sup>•-</sup> and CO<sub>3</sub><sup>•-</sup>/HCO<sub>3</sub><sup>•-</sup> radicals in aqueous phase**, Manuel Sánchez-Polo, Mahmoud M. Abdel daiem, Raúl Ocampo-Pérez, José Rivera-Utrilla, Antonio J. Mota. Science of The Total Environment, 2013 463–464, 423-431 (ISI, IF: 3.163)
  38. **Treatment of water contaminated with Diphenolic acid by gamma radiation in the presence of different compounds**, Mahmoud M. Abdel daiem, José Rivera-Utrilla, Raúl Ocampo-Pérez, Manuel Sánchez-Polo, Jesús J. López-Peñalver. Chemical Engineering Journal, 2013, 219, 371–379 (ISI, IF: 4.058)
  39. **Role of activated carbon in the photocatalytic degradation of 2, 4-Dichlorophenoxyacetic acid by the UV/TiO<sub>2</sub>/Activated carbon system**, José Rivera-Utrilla, Manuel Sánchez-Polo, Mahmoud M. Abdel daiem, Raúl Ocampo-Pérez. Applied Catalysis B: Environmental, 2012, 126, 100–107 (ISI, IF: 5.825)
  40. **Modeling adsorption rate of organic micropollutants present in landfill leachates onto granular activated carbon**, Raúl Ocampo-Pérez, Mahmoud M. Abdel daiem, José Rivera-Utrilla, José D. Méndez-Díaz, Manuel Sánchez-Polo. Journal of Colloid and Interface Science, 2012, 385, 174–182 (ISI, IF: 3.172)
  41. **Environmental impact of phthalate acid esters and their removal from water and sediments by different technologies - A review**, Mahmoud M. Abdel daiem,



- Raúl Ocampo-Pérez, José Rivera-Utrilla, Manuel Sánchez-Polo, *José D. Méndez-Díaz*. Journal of Environmental Management, 2012, 109, 164–178 (ISI, IF: 3.057)
42. **Adsorption/Bioadsorption of Phthalic Acid, an Organic Micropollutant Present in Landfill Leachates, on Activated Carbons**, *José D. Méndez-Díaz, Mahmoud M. Abdel daiem, José Rivera-Utrilla, Manuel Sánchez-Polo, Isidora Bautista-Toledo*. Journal of Colloid and Interface Science, 2012, 369, 358–365 (ISI, IF: 3.172)
43. Resume of the PhD thesis was published in Spanish Carbon Group (**Grupo Español del Carbón, GEC**) volume 28, June 2013, <http://www.gecarbon.org/boletin.asp>

#### **SCIENTIFIC CONFERENCE:**

1. Turki H. Alghubaywi, **Mahmoud M. Abdel-Daiem**, Noha Said, *Enhancing Energy Recovery from Anaerobic Digestion of Biomass Wastes in Saudi Arabia*, Renewable Energy Technologies and Modern Communications Systems: Future and Challenges Conference (RETMCS 2024), Shaqra, KSA 11-12 December 2024 (Oral, English).
2. Raid Alrowais, **Mahmoud M. Abdel daiem**, *Assessment of groundwater suitability for drinking and irrigation purposes using physicochemical parameters at Al-Jouf Area, Saudi Arabia*, WSTA, Gulf Water Conference, Qatar 28-30 April 2024 (Oral Online, English).
3. **Mahmoud M. Abdel daiem**, Invited speaker: *Power Generation from Residual Biomass in Saudi Arabia*, The 3<sup>rd</sup> International Conference on New Trends for Sustainable Energy, ICNTSE 2021 "From Waste to Energy" Faculty of Engineering, Pharos University in Alexandria, Egypt 01-02 March 2022, (Oral Online, English).
4. **Mahmoud M. Abdel daiem**, *Biogas production from anaerobic co-digestion of sewage sludge and agricultural residues*, The 3<sup>rd</sup> International Conference on New Trends for Sustainable Energy, ICNTSE 2021 "From Waste to Energy" Faculty of Engineering, Pharos University in Alexandria, Egypt 01-02 March 2022, (Oral Online, English).
5. **Mahmoud M. Abdel daiem**, *Applications of Fabricated Nano-Carbon Material from Different Agriculture Biomass Residues in water treatment*, The 3<sup>rd</sup> INTERNATIONAL CONFERENCE ON MATERIALS PHYSICS AND CHEMISTRY, Sanya, China, 08-10 January, 2021 (Oral Online, English).
6. **Mahmoud M. Abdel Daiem**, Noha Said, Emad H. El-Gohary, Ahmed Hamdi Mansi, Hany F. Abd-Elhamid, *The effects of submerged biofilter on water quality of polluted drains in Egypt*, NINTH INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL, STRUCTURAL AND MECHANICAL ENGINEERING - CSM 2019" Rome, Italy, 07-08 December, 2019. (Oral, English).
7. Noha Said, Montserrat Zamorano Toro, Ahmed Hamdi Mansi, **Mahmoud M. Abdel Daiem**, *rice straw characteristics and its potential energy in Valencia (Spain)*, NINTH INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL, STRUCTURAL AND MECHANICAL ENGINEERING - CSM 2019" Rome, Italy, 07-08 December, 2019. (Oral, English).
8. **Mahmoud M. Abdel daiem**, *Renewable energy from residual biomass in Egypt*, Workshop IMHOTEP-HYGRID 2017, Hydrogen energy and fuel cells, Zagazig University, Egypt, November 14-15, 2017. (Oral, English).
9. H. F. Abd-Elhamid, **M. M. Abdel daiem**, E. H. El-Gohary, Z. Abou Elnaga, *Safe reuse of treated wastewater for agriculture in Egypt*, EXCEED-SWINDON EXPERT WORKSHOP, Water Efficient Cities", Marrakesh, Morocco, November 03-08, 2017. (Oral, English).





10. **Mahmoud M. Abdel daiem**, Keynote: *Integrating technologies for removal of contaminants present in landfill leachates*, The 11<sup>th</sup> International Conference, INTER-ENG 2017, Interdisciplinarity in Engineering, "Petru Maior" University of Tîrgu-Mureş, Tîrgu-Mureş, Romania, October 05-06, 2017. (Oral, English).
11. **Mahmoud M. Abdel daiem**, Noha Said, Abdelazim M. Negm, *Potential energy from residual biomass of rice straw and sewage sludge in Egypt*, The 11<sup>th</sup> International Conference, INTER-ENG 2017, Interdisciplinarity in Engineering, "Petru Maior" University of Tîrgu-Mureş, Tîrgu-Mureş, Romania, October 05-06, 2017. (Oral, English).
12. **Mahmoud M. Abdel daiem**, Ahmed Farouk AbdelGawad, *Home-Scale Vertical-Axis Wind Turbine for Electricity Generation*, 2<sup>nd</sup> IUGRC International Undergraduate Research Conference, Military Technical College, Cairo, Egypt, July 24-27, 2017. (Oral, English).
13. **Mahmoud M. Abdel daiem**, Ahmed Farouk AbdelGawad, *Running a Home Water Filter Using Solar Energy*, 2nd IUGRC International Undergraduate Research Conference, Military Technical College, Cairo, Egypt, July 24-27, 2017. (Oral, English).
14. **Mahmoud M. Abdel daiem**, Ahmed Farouk AbdelGawad, *Biogas production from mixing wastewater activated sludge with rice straw, animal manure, or fruits wastes in batch modes*, 2nd IUGRC International Undergraduate Research Conference, Military Technical College, Cairo, Egypt, July 24-27, 2017. (Oral, English)
15. **Mahmoud M. Abdel daiem**, Nabil N. Atta, Amro A. El-Baz, Noha Said, *Anaerobic co-digestion of wastewater activated sludge and rice straw in batch and continuous modes*, TICO. Zagazig University, Zagazig, Egypt (March 20-21, 2017) (Poster, English)
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18. **Mahmoud M. Abdel daiem**, Ahmed Farouk AbdelGawad, *Electric power generation from a vertical wind turbine*, TICO. Zagazig University, Zagazig, Egypt (March 20-21, 2017) (Poster, English)
19. Velo-Gala, J. Rivera-Utrilla, M. Sánchez-Polo, J.J. López-Peñalver, **M.M. Abdel daiem**, R. Ocampo-Pérez, *Papel del carbón activado en la degradación fotocatalítica de contaminantes de las aguas*, XII Reunión Del Grupo Español Del Carbon (GEC). Madrid, Spain, (Octubre 20-23, 2013) (Oral, Spanish)
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21. **Mahmoud M. Abdel daiem**, José Rivera-Utrilla, José D. Méndez-Díaz, Manuel Sánchez-Polo, Isidora Bautista-Toledo, *Adsorption/bioadsorption of pollutants from industrial wastewater onto commercial activated carbons*, 2nd International



- Conference Sustainable Water Supply & Sanitation. Cairo, Egypt (December 03-05, 2012) (Oral, English).
22. **Mahmoud M. Abdel daiem**, José Rivera-Utrilla, Manuel Sánchez-Polo, Raul Ocampo-Pérez, *Photocatalytic degradation of 2,4-dichlorophenoxyacetic acid in aqueous phase in the presence of TiO<sub>2</sub> and activated carbon*, 2nd International Conference Sustainable Water Supply & Sanitation. Cairo, Egypt (December 03-05, 2012) (Poster, English).
  23. R. Ocampo-Pérez, **M.M. Abdel Daiem**, J. Rivera-Utrilla, M. Sánchez-Polo, *Degradation of cytarabine and bisphenol A in aqueous phase by advanced oxidation processes based on ultraviolet radiation*, Integral Water Cycle: Present and Future (ANQUE International Congress of chemical engineering). Sevilla, Spain (June 24-27, 2012) (Poster, English).
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  27. **M.M. Abdel daiem**, J. Rivera-Utrilla, J. D. Méndez-Díaz, M. Sánchez-Polo, M. I. Bautista-Toledo., *Adsorption of phthalic acid, an organic micropollutant present in landfill leachates, on activated carbons*, Xth International Symposium on Environment, Catalysis and Process Engineering (ECGP'10). Fez, Morocco (Abril 24-25, 2012) (Oral, English).
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  29. **M.M. Abdel daiem**, J. Rivera-Utrilla, M. Sánchez-Polo, *Potenciación de la actividad catalítica del TiO<sub>2</sub> mediante el uso de carbón activado en la degradación fotocatalítica de contaminantes orgánico*, Reunión Del Grupo Español Del Carbón (GEC). Badajoz, Spain, (Octubre 23-26, 2011) (Oral, Spanish).
  30. **M.M. Abdel daiem**, J. Rivera-Utrilla, M. Sánchez-Polo, *Eliminación de contaminantes presentes en lixivados de vertederos urbanos mediante adsorción sobre carbón activado*, Reunión Del Grupo Español Del Carbon (GEC). Badajoz, Spain, (Octubre 23-26, 2011) (Oral, Spanish).
  31. J. Rivera-Utrilla, M. Sánchez-Polo, J. D. Méndez-Díaz, **M.M. Abdel Daiem**, M.I. Bautista-Toledo, *Removal of organic micropollutants present in wastewaters and leachates by advanced oxidation processes*, Integral Water Cycle: Present and Future (VII ANQUE International congress). Oviedo, Spain, (June 13-16, 2010) (Oral, Spanish).



32. **M .M. Abdel daiem**, Méndez-Díaz J.D., Sánchez-Polo M., Rivera-Utrilla J., *Estudio de procesos avanzados de oxidación y adsorción sobre carbones activados en la eliminación de microcontaminantes orgánicos procedentes de lixiviados*, Reunión del Grupo Español del Carbon (GEC). Gerona, Spain, (May 9-12, 2010) (Oral, Spanish).

#### **HONORS, AWARDS, AND TRAINING:**

- Certificate for the **Best Paper Award** in the “Ninth International Conference on Advances in Civil, Structural and Mechanical Engineering - CSM 2019” Rome, Italy, 07-08 December 2019, paper title: *The effects of submerged bio-filter on water quality of polluted drains in Egypt*.
- Certificate of participation as a member of the Higher Committee for Research Equipment Inventory, **ZU, October 2017**
- Dean's Excellence Award for academic accreditation works, **ZU, January 2017**.
- Self-Management **DAAD Cairo, ZU, 23-11-2016**
- How to Present Scientific Paper **DAAD Cairo, ZU, 16-04-2016**
- Deal with changes **DAAD Cairo, ZU, 12-03-2016**
- A prize of international publication from ZU for 2013 to 2016.
- Resume of the Ph.D. thesis published in Spanish Carbon Group (**Grupo Español del Carbón, GEC**) volume **28, June 2013**, <http://www.gecarbon.org/boletin.asp>
- First one of the top 20 Articles, June 2013 "**Who Is Publishing In My Domain**" journal (WiPiMD) in the Domain of Article 22796723, Since (2012) Environmental impact of phthalic acid esters and their removal from water and sediments by different technologies - a review. Abdel daiem et al., 2012 Oct 30; 109:164-78.
- **Certificates from SU as a trainer**
  1. "Introductory lecture on Research Support Unit (RSU) " 15/01/2019
  2. "Building and Managing a Research Team " 03/02/2019
  3. "How to benefit from the Saudi Digital Library " 12/02/2019
  4. "Basics and Skills of Designing Posters and Presentations" 17/02/2019
- **Certificates from SU as a trainee**
  1. "The benefits of Having an online research profile " 10/02/2019
  2. "Plagiarism Checker" 19/02/2019
  3. "Managing references using (EndNote)" 24/02/2019
- **Certificates from ZU as trainee**
  1. "Use of Technology in Teaching" 30-31/12/2012
  2. "Managing Research Teams" 25-26/12/2012
  3. "Research Project Local and Global Competitiveness" 23-24/12/2012
  4. "Strategic Planning" 18-19/12/2012
  5. "Preparation of University Lecturer" 02-12/12/2012
  6. "Financial Affairs in University Environment" 04-07/07/2007
  7. "Effective Communication Skills" 26-28/06/2007
- **Ph.D. Scholarship from Ministry of Science and Innovation, Spain** 2008 to 2012
- **Certificate from EU for E. Learning System, Germany.** 2006 to 2007.
- **Engineering Syndicate, Egypt.** Excellence award for undergraduate students, 2005.
- **Education Syndicate, Egypt,** Excellence award for undergraduate students, 2006.
- **ZU, Egypt.** Excellence award for undergraduate students, 2006.
- **Ministry of Water Sources & Irrigation training, Toshka, Egypt,** 2003 and 2004.
- **ARDAMAN – ACE Training Giza, Egypt,** 2004.



### **TEACHING EXPERIENCE for BSc, MSc, and Ph.D. programs**

<b>Undergraduate</b>	<b>Univ.</b>	<b>Postgraduate</b>	<b>Univ.</b>
Surface and Groundwater Hydrology	SU	Water Pollution	ZU
Water and wastewater treatment	SU	Unit operations for Treatment	ZU
Water Supply and Drainage system	SU	Liquid Industrial and Waste Treat.	ZU
Industry and Environment	SU	Advanced Separation Methods.	ZU
Introduction to Environmental Eng.	SU	Renewable Energy Sources	ZU
Water Desalination	SU	Solid Waste Management and	ZU
General Chemistry	SU	Treatment	
Geo-environmental Engineering	SU	Environmental Issues and	ZU
Architectural Design	SU	Egyptian Environmental Laws	
Senior Design Project (I and II)	SU	Urban Infrastructure Development	ZU
Sanitary Engineering (I and II)	ZU	for Sustainability	
Environmental Impact Assessment	ZU		
General Chemistry	ZU		

SU: Shauqra University, KSA (2017-up to date)

Zu: Zagazig University, Egypt. (2005-2008 and 2015-2017)

### **REFEREES**

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