

C.V



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ACADEMIC QUALIFICATIONS

University / Institute	Degrees	Faculty	Graduation Date
1- Benha University	Ph.D. in Organic Chemistry	Science	2016
2- Benha University	M.Sc. in Organic Chemistry	Science	2011
3- Alazhar University	B.Sc. in Special Chemistry	Science	2003

EMPLOYMENT RECORD

Name and address of employer	Dates of employment
1- Associate Professor of physical chemistry, department of environmental science and industrial development; faculty of postgraduate studies for advanced sciences (PSAS), Beni-Suef University, Egypt.	1- 25 / 10 / 2023 To Now.
2- Assistance Professor of chemistry, department of environmental science and industrial development, (PSAS), Beni-Suef University, Egypt	2- 1/11/2017
3- Head of the Training Unit at the Quality Assurance Unit, Faculty of postgraduate studies for advanced sciences, Beni Suef University.	3- 1 / 9/ 2018 To Now.
4- Chemist at the Center for Antiquities Research and Maintenance - Projects Sector - Ministry of Antiquities, Egypt.	4- 25 / 7 / 2006 To 31 /10 /2017.

PUBLISHED RESEARCH

- 1- Promoting the mechanical features and thermal endurance of OPC - Pumice composites using functionalized multi-walled carbon nanotubes grafted with nano- silica.**
Amr A. Bayoumi, S. M. A. El-Gamal, M. H. Khedr, Waleed. M. A. El Rouby, [O. A. Mohamed](#)
Innovative Infrastructure Solutions (2025) 10:550
<https://doi.org/10.1007/s41062-025-02341-y>
- 2- High-Performance and Durable Green Geopolymer Based on Slag/Alumina Sludge Ash Incorporating CuFe_2O_4 Spinel Nanograins for Enhanced Gamma Radiation Shielding.**
[O. A. Mohamed](#), Ahmed Hassan, Nesreen R. Abdelwahab,
International Journal of Concrete Structures and Materials 19, 87 (2025).
<https://doi.org/10.1186/s40069-025-00831-y>
- 3- The positive impact of using water-soluble synthetic polymers for the consolidation of archaeological stones**
[O. A. Mohamed](#),
Vietnam Journal of Chemistry (2025);1–10.
<https://doi.org/10.1002/vjch.70018>
- 4- Splicing behaviour of GFRP, BFRP, and steel bars in reinforced concrete beams**
Hala Mamdouh, Ahmed Hassan, Nasr Zenhom, Amr Ali, Amany Salman, [O. A. Mohamed](#),
Discover Applied Sciences (2025) 7:123.
<https://doi.org/10.1007/s42452-025-06507-2>
- 5- Boosting the mechanical performance and fire resistivity of white ordinary portland cement pastes via biogenic mesoporous silica nanoparticles**
Abdallah A. Aziz, Hossam F. Nassar, Mona T. Al-Shemy, [O. A. Mohamed](#)
Scientific Reports, (2025) 15:2909
<https://doi.org/10.1038/s41598-025-86798-y>
- 6- Structural performance enhancement of concrete beams with steel overlapped splices using nanoparticles**
Ahmed Hassan, [O. A. Mohamed](#), Hala Elkady
Innovative Infrastructure Solutions (2025) 10:35
<https://doi.org/10.1007/s41062-024-01833-7>
- 7- The role of green buildings in achieving the sustainable development goals**
Abdul Ghani Olabi, Nabila Shehata, Usama Hamed Issa, [O.A. Mohamed](#),
Montaser Mahmoud, MohammadAli Abdelkareem, M.A. Abdelzاهر.
International Journal of Thermofluids, 25, (2025), 101002.
<https://doi.org/10.1016/j.ijft.2024.101002>
- 8- Experimental and theoretical study on the physico-mechanical characteristics and radiation shielding capability of hardened alumina sludge waste-cement pastes containing MnFe_2O_4 -nanoparticles.**
Amal A. El-Sawy. Mohamed Heikal. Sahar M. Ibrahim. [O. A. Mohamed](#).
Discover Applied Sciences (2024) 6:567.
<https://doi.org/10.1007/s42452-024-06245-x>
- 9- Management of trihalomethanes in water by ZnO@kaolinite composite: integrated experimental and modeling studies.**
Enas Ezzat, El-Sayed I. Mishaqa, [O. A. Mohamed](#), Nabila Shehata,

J Water Health jwh2024250.

<https://doi.org/10.2166/wh.2024.250>

10- Manufacture of eco-friendly cementitious building materials of high performance from Egyptian industrial solid wastes.

M.S. Amin, Mohamed Heikal, H.H. Negm, Ahmed M. Abu-Dief, [O.A. Mohamed](#)

Construction and Building Materials, 406, (2023), 133446

<https://doi.org/10.1016/j.conbuildmat.2023.133446>

11- Fabricated CeO₂/ZrO₂ nanocomposite to improve thermal resistance, mechanical characteristics, microstructure and gamma radiation shielding of OPC composite cement pastes.

Sahar M Ibrahim, Mohamed Heikal, Nesreen R. Abdelwahab, [O.A. Mohamed](#).

Construction and Building Materials, 392, (2023), 131971.

<https://doi.org/10.1016/j.conbuildmat.2023.131971>

12- Positive impact of polymer impregnated on the enhancement of the physico-mechanical characteristics and thermal resistance of high-volume fly-ash blended cement.

Sahar M. Ibrahim, Mohamed Heikal, Amal M. Metwally, [O.A. Mohamed](#),

Construction and Building Materials 381 (2023) 131243.

<https://doi.org/10.1016/j.conbuildmat.2023.131243>

13- Impact of microporous γ -Al₂O₃ on the thermal stability of pre-cast cementitious composite containing glass waste.

[O.A. Mohamed](#), M.M. Hazem, Alaa Mohsen, M. Ramadan,

Construction and Building Materials 378 (2023) 131186.

<https://doi.org/10.1016/j.conbuildmat.2023.131186>

14- Valorification of Egyptian volcanic tuff as eco-sustainable blended cementitious materials.

Khaled E. H. Eldahroty, A. A. Farghali, Nabila Shehata, [O. A. Mohamed](#),
Scientific Reports 13, (2023) 3653.

<https://doi.org/10.1038/s41598-023-30612-0>

15- Performance of CeO₂-nanoparticles on the mechanical and photocatalytic properties of composite cement.

Sahar M. Ibrahim, Mohamed Heikal, [O.A. Mohamed](#),

Journal of Building Engineering, 68, 2023, 106162.

<https://doi.org/10.1016/j.jobe.2023.106162>

16- An initial study on the effect of nano-zirconium on the behaviour of alkali-activated slag cement subjected to seawater attack.

Alaa M. Rashad, Ashraf K. Eessaa, Mervat H. Khalil, [O.A. Mohamed](#),

Construction and Building Materials 370 (2023) 130659.

<https://doi.org/10.1016/j.conbuildmat.2023.130659>

17- Mechanical performance and thermal stability of hardened Portland cement-recycled sludge pastes containing MnFe₂O₄ nanoparticles.

[O. A. Mohamed](#), S. I. El-dek, S.M.A. El-Gamal,

Scientific Reports (2023) 13: 2036.

<https://doi.org/10.1038/s41598-023-29093-y>

18- Cost-effective and green additives of pozzolanic material derived from the waste of alum sludge for successful replacement of portland cement.

[O. A. Mohamed](#), A. A. Farghali, Ashraf K. Eessaa, A. M. El-Shamy,

Scientific Reports (2022) 12:20974.

<https://doi.org/10.1038/s41598-022-25246-7>

19- Review: concrete as green building materials: Recent applications, sustainable development and circular economy potentials.

Nabila Shehata, [O. A. Mohamed](#), Enas Taha Sayed, Mohammad Ali Abdel kareem, A. G. Olabi,

Science of the Total Environment 836 (2022) 155577.

<http://dx.doi.org/10.1016/j.scitotenv.2022.155577>

20- Utilization of alum sludge waste for production of eco- friendly blended cement.

[O. A. Mohamed](#), S.M.A. El-Gamal, A. A Farghali,

J Mater Cycles Waste Manage. 24, 949–970 (2022).

<https://doi.org/10.1007/s10163-022-01369-x>.

21- Mechanical Characterization of Polymer- Reinforced Glass Fibers Composites (PRGFs) and Nanocrystalline Titanium Dioxide.

[Ola A. Mohamed](#), Y. A. Abo El Amaim, Doaa H. Elgohary,

Journal of the Textile Association, 82/2 (129-134), (Sep-Oct'2021).

22- Early hydration characteristics of oil well cement pastes admixed with newly prepared organic admixture).

S.A. Abo-El-Enein, S.M.A. El-Gamal, I.A. Aiad, M.M. Azab, [O.A. Mohamed](#), HBRC Journal (2018) 14, 207–214.

<https://doi.org/10.1016/j.hbrcj.2016.09.001>

23- Effect of Newly Prepared Admixture on the Rheology and Early Hydration Characteristics of the Oil Well Cement Pastes.

S. A. Abo-El-Enein, S. M. A. El-Gamal, I. A. Aiad, M. M. Azab, [O. A. Mohamed](#),

Benha Journal of Applied Science by Elsevier B.V.(BJAS), (1) (2016), 151-164.

24- Preparation of some water soluble polymers for consolidation of archaeological wood.

M. F. Eissa, I. Aiad, A. M. Attia. [O. A. Mohamed](#),

Mansoura Engineering Journal - Mansoura University (MEJ), 35 (3), (2010)1-9.

<https://doi.org/10.21608/BFEMU.2020.125178>

SCIENTIFIC SUPERVISION

- Supervising and being a member of Oral Defense Committees of the PhD dissertation and MSc Thesis for a number of postgraduate students in Egypt.

MEMBERSHIP OF PROFESSIONAL BODIES

- Member of the Egyptian Society for Metal Corrosion and Protection.

INTERNATIONAL JOURNALS REVIEWER

1. Construction and Building Material.
2. Case studies in construction materials.
3. Journal of Materials Research and Technology.
4. Thin-walled structures.
5. Scientific Reports.
6. Journal of Material Cycles and Waste Management.
7. Iranian Journal of Science and Technology, Transactions of Civil Engineering.
8. Discover Civil Engineering.
9. Discover Applied Sciences.
10. Egyptian journal of chemistry.

SCIENTIFIC CONFERENCES

1. Participated in the International Conference of the role of women scientists and international cooperation in technology transfer and localization, which was held at Cairo University on Thursday, February 20th, 2025.
2. Participated in organizing in The 5th International Conference of Advanced Sciences (ICAS 5), Postgraduate Studies for Advanced Sciences Faculty, Paris-Saclay University and Misr International University on 9-12 November 2019.
3. Participated in organizing in The 3rd Annual Scientific Conference of ESID, Environmental Sciences and Industrial Development, Postgraduate Studies for Advanced Sciences Faculty on 23 June 2019.
4. Participated in the 2nd International Conference of the ESID department, PSAS Faculty on Waste to Energy Conference, Beni- Suef University on 22th April, 2018.
5. Participated in Beni- Suef University Workshop on Recent Advances in Renewable Energy Technologies III, Postgraduate Studies for Advanced Sciences Faculty on 9th December 2018.
6. Participated in Egyptian Knowledge Bank & Clarivate Analytics Workshop on Quality in Research: From Research Topic Identification to Publishing on 19 July 2018.
7. Participated in Beni- Suef University Workshop on Statistical Data Analysis, Postgraduate Studies for Advanced Sciences Faculty on 25 March 2018.
8. Participated in Italian-Egyptian Workshop on Sciences and Technologies Applied to Cultural Heritage (STACH 1), Cairo, on December 11th -13th, 2016.
9. Participated in the 4th Ain Shams University Workshop on Oilfield Chemistry, Faculty of Engineering on December 2nd, 2015.
10. Participated in the 1th International congress on Science for the Roll of Applied Science in the Development of Society, Benha University, Faculty of Science on September 5th-6th, 2015.
11. Participated in the 3rd Ain Shams University Workshop on Oilfield Chemistry, Faculty of Engineering on September 17th, 2014.

12. Participated in the 4th International congress on Science and Technology for the Safeguard of Cultural Heritage in the Mediterranean Basin, held in Cairo on December 6th-8th, 2009.

**INTERNATIONAL & NATIONAL – FUNDED RESEARCH
PROJECTS AND GRANTS**

Role	Project Title	Type of Fund	Total Fund	Date
Principal Investigator (PI)	Production of novel cementitious materials with improved properties using some solid wastes and nano-materials prepared by low-cost techniques	Beni-Suef University, university performance development center, support and project finance office, Project ID # BSU-CP7-19015	50.000 EP	2021/2023
Principal Investigator (PI)	Developing sustainable and eco-friendly building materials to resist climate changes and shield ionizing radiations	Beni-Suef University, university performance development center, support and project finance office, ID # BSU-CP8-25002	200.000 EP	2025/2027
Principal Investigator (PI)	Towards the production of sustainable and eco-friendly construction materials with improved properties using nanocomposites from biomass waste. (Under Evaluation).	Egypt-Italy Mobility Project" - Italian National Research Council, CNR	300.000 EP	2024/2025
Principal Investigator (PI)	Green Synthesis of Metal-Organic Frameworks (MOFs) from Waste Materials for Energy-Efficient Building Envelope Applications. (Under Evaluation).	STDF- US	\$200,000	2025/2026
Team member	Revolutionizing thermal energy storage using 3d printed concrete with nano-enhanced performance (Under Evaluation).	STDF- US	\$200,000	2025/2026
Team leader	Eco-friendly cement formulations incorporate Mollusca, diatoms, and fungi to line the seepage of drains around Lake Qarun	UNESCO (WEFE Trial in Motion Competition)	\$20,000	2025/2026

PROFESSIONAL COURSES

Course Description
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the university management which was held from 18/6/23 to 19/6/2023.
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the Scientific research ethics which was held from 29/11/2022 to 30/11/2022
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the ethical conduct and code of ethics which was held from 27/11/2022 to 28/11/2022.
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the use of technology in teaching which was held from 20/11/2022 to 21/11/2022.
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the integrity, transparency and anti-corruption in the period from 19/12/2021 to 20/12/2021
<ul style="list-style-type: none"> ▪ The fundamentals of digital transformation certificate, ICT training, Beni-Suef University in the period from 1/2022 to 12/2025.
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the preparation of the university teacher in the period from 18/10/2017 to 19/10/2017.
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the strategic planning which was held from 17/10/2017 to 18/10/2017.
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in the literature and behavior of the profession in university work on 16/10/2017.
<ul style="list-style-type: none"> ▪ Training course from the Center for Human Resources Development at Beni Suf University in preparation of competitive projects to fund research on 15/10/2017.
<ul style="list-style-type: none"> ▪ Training course of the Center for the development of the capacity of faculty members and leaders at the University of Benha in the ethics of scientific research in the period from 24/6/2014 to 26/6/2014.
<ul style="list-style-type: none"> ▪ Training course of the Center for the development of the capacity of faculty members and leaders at the University of Benha in the methodology of scientific research in the period from 5/7/2014 to 7/7/2014.
<ul style="list-style-type: none"> ▪ The basic skills development program in the field of information technology of the Ministry of Communications and Information, which was held under the supervision of the Arab Academy for Science, Technology and Maritime Transport from 9/10/2004 to 5/1/2005 for 360 hours.
<ul style="list-style-type: none"> ▪ Program designers at the Research and Conservation Center of the Supreme Council of Antiquities, Ministry of Antiquities, from 8/4/2007 to 30/4/2007
<ul style="list-style-type: none"> ▪ ITP Toffel Certificate, Amideast, Egypt 2017.

LANGUAGES

Understand			Write			Read			Speak			
Fair	Good	Excel	Fair	Good	Excel	Fair	Good	Excel	Fair	Good	Excel	
		*			*			*			*	Arabic
		*			*			*			*	English

COMPUTER AND STATISTICAL SKILLS

- 1. International computer driver license (ICDL) certification (word. Access, excel, PowerPoint, internet, information technology, using the computer and managing files).**
- 2. Digital transformation fundamentals certificate**
- 3. Skillful Statistical analysis using Excel, SPSS, Sigma Stat and Sigma plot.**
- 4. Data base creator by using Microsoft access.**
- 5. Web designing using front page and online templates.**
- 6. Professional image processing (Corel Draw, Corel and Adobe Photoshop).**