

## Curriculum Vitae



### Personal information

**First name(s) / Surname(s)** **Yasser Abd El Tawab Osman**  
**Address** Chemistry Department, Faculty of Science, 11795, Cairo, Egypt  
**Telephone(s)** 002-01223461073  
**E-mail** gasserchm@gmail.com  
**Nationality** Egyptian  
**Date of birth** 14.11.1976  
**Gender** Male

### Work experience

**Dates** 1.5.2015 onwards.  
**Occupation or position held** Assistant Professor  
**Main activities and responsibilities** Teaching the courses of Polymer Chemistry, Materials Science and Physical Chemistry, for science students.  
**Name and address of employer** Chemistry Department, Faculty of Science, Helwan University, Egypt.  
**Type of business or sector** Egyptian University

**Dates** 1.8.2001 to 1.3.2007 | 29.7.2009 – 1.5.2015  
**Occupation or position held** Demonstrator | Assistant lecturer  
**Main activities and responsibilities** Teaching the laboratory courses of Physical, Inorganic, Organic, Analytical and Applied Chemistry  
**Name and address of employer** Chemistry Department, Faculty of Science, Helwan University, Egypt.  
**Type of business or sector** Egyptian University

### Education and training

#### Education

**Dates** 29.7.2009 to 22.2.2015  
**Title of qualification awarded** PhD in Material Science

Principal subjects/occupational skills covered	<p>Thesis entitled " Studies on the chemical and thermal stability of the thaumasite salt and its expansion behavior"</p> <ul style="list-style-type: none"> <li>- The objective of the research was to understand the durability of the cement system, especially the limestone cement, at different exposure conditions of low to ambient temperatures through studying the conditions of thaumasite formation with respect to temperature, type of ions and phases, solubility considerations and also the stability domains. It also aims to study the relation between the thaumasite formations with the phenomena of sulfate attack. The results obtained explains the limit of addition of limestone to the ordinary Portland cement included in the European standard specification for the cement which has been adopted in the Egyptian specification of cement since 2005.</li> <li>- During this work samples characterized by different tools like Fourier transformer infrared spectroscopy (FT-IR), X-ray diffraction spectroscopy (XRD), X-ray fluorescence (XRF), scanning electron microscope (SEM), expansion dial gauge, compressive strength, and other wet chemical analysis procedures.</li> <li>- This work also focus on the use of Fourier transformer infrared spectroscopy (FT-IR) as a tool in identifying the hypervalent silicon and thaumasite phase in the presence of other ions and compounds in the building materials.</li> </ul>
Name and type of organisation providing education and training	Chemistry Department, Faculty of Science, Helwan University, Egypt.
Dates	2001 -2007
Title of qualification awarded	Master of Science in Physical Chemistry.
Principal subjects/occupational skills covered	<p>Thesis entitled "Studies on the expansion phenomena of heat-treated mortar related to the stability of calcium sulfoaluminate hydrate".</p> <ul style="list-style-type: none"> <li>- In this work the factors affecting the expansion behavior of heat treated mortars were investigated</li> <li>- The as received cements were doped with gypsum to increase their sulfate content to ~4% SO<sub>3</sub>. They were also milled to raise their fineness to ~5000 cm<sup>2</sup>/g Blaine.</li> <li>- Magnesium sulfate solution leads to appreciable expansion but the effect of sodium sulfate is more significant</li> <li>- Also it is found that increased fineness favors the expansion which becomes dramatic in sodium sulfate solution also the sulfate doping reduces the effect of fineness on the expansion in ordinary Portland but not the sulfate resisting cement</li> </ul>
Name and type of organisation providing education and training	Faculty of Science, Chemistry Department, Helwan University, Cairo, Egypt
Dates	1995-1999
Title of qualification awarded	Bachelor of Science in Chemistry
Principal subjects/occupational skills covered	<ul style="list-style-type: none"> <li>- Chemistry (Physical Chemistry, Organic Chemistry, Inorganic Chemistry and Analytical Chemistry)</li> <li>- Physics (Thermodynamics, Properties of Matter and Heat, Sound and Waves, Physical Optics and Atomic Physics)</li> <li>- Math (Probabilities and Statics, Mathematical Analysis and Differential Equation)</li> <li>- Computer Science</li> </ul>
Name and type of organisation providing education and training	- Chemistry Department, Faculty of Science, Helwan University, Cairo, Egypt.
<b>Training</b>	
Dates	20014-20015
Principal subjects/occupational skills covered	<ul style="list-style-type: none"> <li>- "University Administration" Workshop, "Research Team Management" Workshop, "communication Skills" Workshop, "Conference Organization" Workshop, "Student Evaluation" Workshop, "How to Compete For Research Fund" Workshop</li> </ul>
Name and type of organisation providing education and training	Competency Development and Ongoing Training Center (CDOT) at Helwan University

Dates 2001 - 2005

Principal subjects/occupational skills covered

- Doing MSc experiments including: physical and chemical characterization and measurement (including civil and chemical parts).
- Building materials characterization with respect to their mechanical, physical and surface properties.

Name and type of organisation providing education and training

- Shoubra Faculty of engineering, Benha university, Cairo, Egypt,
- Faculty of science, Helwan university, Cairo, Egypt.

Dates July and August 1998

Principal subjects/occupational skills covered

- Training at the efficiency, printability and characterizations of paper samples

Name and type of organisation providing education and training

- Paints and Chemical Industries Company SAE, **Cairo, Egypt.**
- Faculty of science, Helwan University, Cairo, Egypt.

### Personal skills and competences

Mother tongue Arabic

Other language(s)

Self-assessment

European level (\*)

**English**

**French**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
B1	B1	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

Social skills and competences

- Good communication skills and willing to hear other people's opinions and understand them.
- Excellent team worker.

Organisational skills and competences

- Proven ability in the organization of the conferences & special events.
- Having a highly degree of self-motivation, enthusiasm, good communication and soft skills as well as a target oriented working profile.
- Working under pressure, proven ability to deal with wide variety of situations and individuals in a calm, professional manner.
- Willing to undertake any training or development required by employers.
- The ambition and ability to work interdisciplinary in various work environments both independently and in collaboration with others.

## Computer skills and competences

- Competent with most Microsoft Office programs (The international Computer Deriving License, ICDL).
- Proficiency in searching the Internet and online databases like CSA, STN, Analytical Abstracts, Scoupe, PubMed, SciFinder, Beilstein, Chem Village, Web Science, ISI.
- An outstanding knowledge in dealing with the scientific software, such as Endnote, Sigma Plot, Reference Manger, Chem Office, Isis Draw, KaleidaGraph, PeakFit...etc.

## Additional information

### Scientific and Technical Areas of Interest

- The durability of the heat cured mortar and concrete
- The durability of lime stone cement which related the formation of thaumasite salt
- Nanotechnology in building material
- High temperature mineralogy of clinker formation.
- The chemistry and mineralogy of cement hydration.
- The relationship between the cement production variables and the thermodynamics and kinetics of cement hydration and general performance in concrete.
- Concrete durability

### Publications

#### Peer-Reviewed Works

Ghorab, H.Y., Mabrouk, M.R., Ismail, K.I., Osman, Y. A., Abd Elnaby, S. F., Yousri, K. M., Ahmed, H. H., Herfort, D.: The suitability of Portland limestone cement for use in construction applications in Egypt. CEMENT INTERNATIONAL 6-2014.

Ghorab, H.Y., Mabrouk, M.R., Herfort, D., Osman, Y.A.: Infrared investigation on systems related to the thaumasite formation at room temperature and 70C. cement wapno beton 4- 2014, pp.252-262.

Ghorab, H. Y., Zayed, A.M., Mohamed, A. S., Osman, Y. A., Ahmed, H .E.H., Mabrouk, M. R. Factors affecting the sulfate expansion in cement systems. 12th International Congress on the Chemistry of Cement. Canada, (2007).

#### Works Under Preparation

Osman, Y. A., The stability of heat cured lime stone mortar in aggressive conditions of thaumasite formation

- References
- **Prof. rer nat Hanaa Yousef Ghorab** Professor of applied physical Chemistry, Chemistry Department, Faculty of science, University of Helwan", Egypt.  
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  - **Prof. Mohammed A Sharaf**, Professor of Chemistry, Chemistry Department, Faculty of Science Helwan University, Egypt  
E-mail: sharafma@yahoo.com  
Phone: +2.01221076312
- Personal interests
- Enjoy all sports particularly swimming and running; love to travel and experience different cultures