



# Abdelrazek Askar

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📍 **Work** : Benha University, Faculty of Science, 13518, Benha, Egypt

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**Gender**: Male **Date of birth**: 10/01/1996 **Nationality**: Egyptian

## ABOUT ME

My name is Abdelrazek Askar, an assistant lecturer and scientific researcher at the Chemistry Department of the Faculty of Science, Benha University, Egypt. I received a BSc in Chemistry in 2018 from Benha University, Egypt, and my MSc in inorganic and analytical chemistry from Benha University in 2022. My research interests focus on the development and synthesis of nanomaterial and organic compounds for electrochemical, chemical, and optical (bio) sensors and wearable devices application.

## WORK EXPERIENCE

[ 01/11/2018 – Current ]

### Chemistry Assistant lecturer

*Chemistry Department/ Faculty of Science/ Benha University*

**City**: Benha

**Country**: Egypt

**Business or sector**: Professional, scientific and technical activities

My main roles are to support the design, development, and production of learning and teaching material —such as Analytical Chemistry, Kinetic chemistry, Water treatment, and Inorganic chemistry— and deliver it either across a range of modules or within a subject area. And ensure the efficient delivery of teaching programs in accordance with the University's strategy, policy, and procedures. Moreover, helping student groups develop professional skills; ability, and willingness to continue to update knowledge and expertise; contributing to innovation and development in a discipline or area of specialism.

[ 01/09/2018 – 30/10/2018 ]

### Chemical engineer

*TCI Sanmar* <http://sanmargroup.com/index.php>

**Address**: Industrial Area (C9), El Raswa, Port Said, Egypt

**City**: Port Said

**Country**: Egypt

**Name of unit or department**: Petrochemicals

**Business or sector**: Manufacturing

1. Ensure plant and personal safety is maintained through the application of safety procedures.
2. Maintain plant conditions within safe operating limits.
3. Prepare technical and progress reports to inform management of unit conditions.
4. Conduct technical research needed to solve technical problems and recommend solutions, in coordination with the technical department.
5. Identify opportunities for improving the performance of my process unit.
6. Follow up lab results and recommend corrective actions to be done.
7. Establish and communicate daily operating guidelines.
8. Participate in planning unit maintenance activities and preparation for overhaul and responsibilities.

## EDUCATION AND TRAINING

[ 10/01/2020 – 20/03/2022 ]

### M.Sc., Inorganic and Analytical Chemistry

**Benha University** <https://bu.edu.eg/en>

**Address:** Faculty of Science, Chemistry Department, 13518, Benha, Egypt

**Field(s) of study:** Optical Chemical Sensor | Natural sciences, mathematics and statistics

**Final grade:** Cumulative GPA: 4.0 out of 4 , With accumulative Grade: Excellent with Honor (A+)

**Thesis:** Optical sensor optodes coupled with spectrophotometric, determination of some polluted metals using some organic reagents

[ 01/10/2018 – 15/06/2019 ]

### Pre-Master, Inorganic, Organic, Analytical and Physical Chemistry

**Benha University** <https://bu.edu.eg/en>

**Address:** Faculty of Science, Chemistry Department, 13518, Benha, Egypt

**Field(s) of study:** Chemistry

**Final grade:** Cumulative GPA: 3.3 out of 4 , With accumulative Grade: Very Good with Honor (B+)

[ 01/10/2014 – 15/06/2018 ]

### BSc., Chemistry

**Benha University**

**Address:** Faculty of Science, Chemistry Department, 13518, Benha, Egypt

**Field(s) of study:** Natural sciences, mathematics and statistics: *Chemistry*

**Final grade:** Cumulative GPA: 3.81 out of 4 , With accumulative Grade: Excellent with Honor (A-)

## LANGUAGE SKILLS

**Mother tongue(s):** Arabic

**Other language(s):**

### English

**LISTENING B2 READING B2 WRITING B2**

**SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

### French

**LISTENING A2 READING A2 WRITING A2**

**SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1**

## DIGITAL SKILLS

Microsoft Office | Microsoft Word | Microsoft Powerpoint | Google Drive | Microsoft Excel | Google Docs | Power Point | Skype | Outlook | Social Media | Good listener and communicator | Organizational and planning skills | Written and Verbal skills | Team-work oriented | Motivated | Creativity | Decision-making | Critical thinking | Analytical skills | Strategic Planning | Chem-draw

## PUBLICATIONS

[ 2021 ]

### [Quantification of silver in several samples using a new ionophore polymer membrane as an optical sensor](#)

Growing concerns about the possible toxicity of silver to aquatic organisms, bacteria, and humans have led to newly issued regulations by the United States Environmental Protection Agency (US EPA) and the Food and Drug Administration (FDA) regarding the

use of silver. However, the increase in bacterial resistance to antibiotics has led to a resurgence in the use of silver as a biocidal agent in applications ranging from washing machine additives to the drinking water treatment system on the International Space Station (ISS). For Ag<sup>+</sup> ion detection, a highly sensitive and reversible optical sensor has been established. The optode relies on a novel Schiff base, namely 2-[(benzo[d]thiazol-2-ylimino)methyl]phenol (BTMP) immobilized within PVC film and also incorporated with tris(2-ethylhexyl)phosphate (TEHP) and Aliquat 336 as an ion carrier. Under optimum conditions (*i.e.* pH 8.5), the proposed sensor displayed a linear response to Ag<sup>+</sup> over  $4.8 \times 10^{-9}$  to  $1.0 \times 10^{-5}$  M ( $0.8494$ – $1698.7 \mu\text{g L}^{-1}$ ) with limits of detection and quantification of  $1.5 \times 10^{-9}$  and  $4.8 \times 10^{-9}$  M ( $0.2548$  and  $0.8494 \mu\text{g L}^{-1}$ ), respectively. The sensor's response time was found to be 8.0 min. The sensor was applied successfully to determine Ag<sup>+</sup> ion in some real samples, including food, biological, water, and environmental samples.

[ 2022 ]

### **Optical sensor optodes coupled with spectrophotometric, determination of some polluted metals using some organic reagents**

Master Thesis

### **Optical sensor construction for copper detection based on a new synthesized ionophore immobilized on a polymer membrane**

Under publication

## **NETWORKS AND MEMBERSHIPS**

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### **Social skills and competences**

I have a good personality coupled with the integrity of character. I am sure that I will take on my responsibilities competently. I am responsible, energetic, hard worker, and I can work well independently as well as collaboratively on teams of researchers from diverse backgrounds. Also, I am able to successfully complete multiple tasks with favorable results despite deadline pressure. I am eager to learn, dynamic, and have good communication skills.

## **CONFERENCES AND SEMINARS**

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### **The 8th Youth Researchers Forum at the faculty of Science - Mansoura University**

Faculty of Science - Mansoura University

### **Workshop about X-ray Techniques** Faculty of Science - Benha University

### **Seminar about perovskite solar cell**

Faculty of Science - Benha El-Obour University

## **CREATIVE WORKS**

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[ 02/04/2022 – 02/04/2022 ] **Awareness Convey about water and how to prevent the pollution of water**

### **Quality Management - Standard 4: Teaching staff and support staff**

### **Technical skills and competences**

Currently, I am responsible for three committees in my faculty (Quality of laboratories, Chemicals, Summer term), also I have good experience in research work and handling the recent analytical

## TRAINING

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[ 02/07/2017 – 12/07/2017 ] **Training in the field of Scientific Research – National Research Center**

In this training:

1. **learning how to prepare organic material**
2. **Monitoring of chemical reactions by TLC**
3. **Purification of product by crystallization of the product**
4. **Extraction and separation of natural product**

[ 16/07/2017 – 15/08/2017 ]

**Training in the field of Scientific Research - Egyptian Petroleum Research Institution**

In this training:

1. **Learning about water treatment**
2. **Gaining more information and knowledge about petroleum chemistry**
3. **Training and studying new instruments, such as X-ray, Gas chromatography, HPLC, Mass chromatography, and UV spectroscopy.**

[ 02/07/2017 – 13/07/2017 ] **Training in the quality of the products – Egyptian Chemistry Administration**

In this training:

1. **Testing the quality of sterilization and disinfection products, including antiseptics, detergents, and alcohol products.**
2. **Testing the quality of the product through instruments, such as HPLC, ICP, and UV.**

[ 13/08/2017 – 14/08/2017 ] **Training in Fluid of Drilling – Halliburton Company**

Through this training, I have known

1. **Preparation of mud**
2. **Measurements and analysis of mud**
3. **Types of mud**
4. **Safety principals**
5. **Equipment used to make reusing for mud such as centrifugal and Shale shakers.**

[ 30/07/2016 – 06/08/2016 ]

**Training in quality control of petroleum oil - Wastani petroleum Company (WASCO)**

[ 15/07/2017 – 22/07/2017 ]

**Training in the field of Water Treatment – Shoubra Elkhieima water company for water purification**

[ 24/07/2017 – 27/07/2017 ] **Training in the field of Paints- Pachin For Paints**

## COURSES

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**ICDL course at Faculty of Engineering Cairo University**

Good command of Windows, and Microsoft Office™ tools (Word™, Excel™, Access™, outlook™, Publisher™, and PowerPoint™); - Good command of graphic design applications (Adobe Illustrator™, Photoshop™). - Good command of chemical draw programs (Chem Draw™, Isis™, and Chem Sketch™)

[ 17/08/2018 – 20/08/2018 ] **First Aid course at Sigma center Kasr Alainy**

[ 05/11/2022 – Current ] **Writing in Science - Stanford University (online course)**

This course teaches me to become a more effective writer, using practical examples and exercises. Topics include principles of good writing, tricks for writing faster and with less anxiety, the format of a scientific manuscript, peer review, grant writing, ethical issues in scientific publication, and writing for general audiences.

## REFEREE

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### **Prof. Dr. Alaa El-Sayed Ahmed Ahmed Amin**

**Academic Position:** Former Dean of the Faculty of Science, Benha University, Egypt, and Professor of Analytical Chemistry.

**Edu-Mail:** alaa.amin@fsc.bu.edu.eg

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**Tel:** +201144757886

### **Prof. Dr. Mohamed Ahmed Hassan Heikal**

**Academic Position:** Vice Dean of the Faculty of Science, Benha University, Egypt, and Professor of Inorganic Chemistry.

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