

- **Personal information**

Full name: Mohamed Mahmoud Abd Elaal Ahmed

Job: Assistant Lecturer – Chemistry

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Date of birth: 21st of January 1989



- **Work experience**

Dates: Jan., 2021 up to now

Occupation: Ph.D. candidate

Name and address of employer: Battery Research Center of Green Energy, Ming Chi University of Technology, Taiwan.

Type of business or sector: focuses especially on the research and development of future green energy technologies for industry.

Dates: Nov., 2018 up to Dec., 2020

Occupation: **Assistant lecturer, Quality Manager of accreditation lab (ISO 17025).**

Name and address of employer: Tabbin Institute for Metallurgical Studies (TIMS), Cairo, Egypt.

Type of business or sector: TIMS is a postgraduate, research and consultancy institute affiliated from Ministry of Trade & Industry, Environmental measurements are the main field of work.

Dates: April 2011 up to Nov., 2018

Occupation: Chemist, Quality Manager

Name and address of employer: Tabbin Institute for Metallurgical Studies (TIMS), Cairo, Egypt.

- **Main activities and responsibilities:**

- Providing Environmental services to industrial companies.
- Carrying out the researches related to Air and water treatment by designing environmentally friendly system.
- Conducting technical training courses for engineers and technicians at TIMS.
- Environmental Impact studies (EIA).

- **Education**

Dates: 2016

Title of qualification awarded: M.Sc. in Chemistry

Name and type of organization: Ain Shams University, Cairo, Egypt.

Dates: 2010

Title of qualification awarded: B.Sc. in Applied Chemistry

Name and type of organization: Ain Shams University, Cairo, Egypt

- **Training and courses**

Dates: 2020

Title of qualification awarded: ISO 17025:2017

Name and type of organization: National Institute for Quality (NIQ), Cairo, Egypt.

Dates: 2018

Title of qualification awarded: Method Validation

Name and type of organization: Tabbin Institute for Metallurgical Studies (TIMS), Cairo, Egypt.

Dates: 2018

Title of qualification awarded: OHSAS-18001-2007

Name and type of organization: Tabbin Institute for Metallurgical Studies (TIMS), Cairo, Egypt.

Dates: 2018

Title of qualification awarded: ISO 14001/2015

Name and type of organization: Tabbin Institute for Metallurgical Studies (TIMS), Cairo, Egypt.

Dates: 2018

Title of qualification awarded: ISO 9001/2015

Name and type of organization: Tabbin Institute for Metallurgical Studies (TIMS), Cairo, Egypt.

Dates: 2018

Title of qualification awarded: Training on High Volume Air Sampler.

Name and type of organization: ElNada Scientific Office, Cairo, Egypt.

Dates: 2018

Title of qualification awarded: Training on Automatic IsoKinetic Sampler.

Name and type of organization: ElNada Scientific Office, Cairo, Egypt.

Dates: 2018

Title of qualification awarded: Training on Sound Level Meter.

Name and type of organization: ElNada Scientific Office, Cairo, Egypt.

Dates: 2017

Title of qualification awarded: Training on Sound Level Meter.

Name and type of organization: ElNada Scientific Office, Cairo, Egypt.

Dates: 2017

Title of qualification awarded: Basics of Entrepreneurship Shell Intilaaqah (Middle East version of LiveWire programme)

Name and type of organization: Shell, Cairo, Egypt

Dates: 2016

Title of qualification awarded: Approved ISO 9001:2015 Auditor / Lead Auditor

Name and type of organization: AJA regional office, Cairo, Egypt

Dates: 2015

Title of qualification awarded: Nanotechnology

Name and type of organization: Egyptian Society of Mechanical Engineers

Dates: 2012

Title of qualification awarded: Course in fire fighting

Name and type of organization: Ministry of Interior, Cairo, Egypt

Dates: 2011

Title of qualification awarded: Approved ISO 9001:2000 Auditor / Lead Auditor

Name and type of organization: AJA regional office, Cairo, Egypt

Dates:2009

Name and type of organization: Central Laboratory for drinking water, Cairo, Egypt

Dates:2008

Name and type of organization: The Cairo Company for pharmaceuticals, Cairo, Egypt

Dates:2006

Title of qualification awarded: ICDL

Name and type of organization: UNISCO

List of publications

<https://orcid.org/0000-0003-0452-7750>

Journal papers

- Liao, W.-L.; Hung, T.-F.; **Abdelaal, M. M.**; Chao, C.-H.; Fang, C.-C.; Mohamed, S. G.; Yang, C.-C. **Highly efficient sodium-ion capacitor enabled by mesoporous NaTi₂(PO₄)₃/C anode and hydrogel-derived hierarchical porous activated carbon cathode.** *J. Storage Mater.* **2022**, 55, 105719. DOI: 10.1016/j.est.2022.105719.
- Amirtha, R.M.; Hsu, H.-H.; **Abdelaal, M.M.**; Anbunathan, A.; Mohamed, S.G.; Yang, C.-C.; Hung, T.-F. **Constructing a Carbon-Encapsulated Carbon Composite Material with Hierarchically Porous Architectures for Efficient Capacitive Storage in Organic Supercapacitors.** *Int. J. Mol. Sci.* **2022**, 23, 6774. DOI: 10.3390/ijms23126774
- Abdelaal, M. M.**, Hung, T.-C., Mohamed, S. G., Yang, C.-C., & Hung, T.-F. (2022). **Two Birds with One Stone: Hydrogel-Derived Hierarchical Porous Activated Carbon toward the Capacitive Performance for Symmetric Supercapacitors and Lithium-Ion Capacitors.** *ACS Sustainable Chemistry & Engineering*, 10(14), 4717-4727. DOI: 10.1021/acssuschemeng.2c00266
- Abdelaal, M. M.**, Hung, T.-C., Mohamed, S. G., Yang, C.-C., Huang, H.-P., & Hung, T.-F. (2021). **A Comparative Study of the Influence of Nitrogen Content and Structural Characteristics of NiS/Nitrogen-Doped Carbon Nanocomposites on Capacitive Performances in Alkaline Medium.** *Nanomaterials*, 11(7), 1867. DOI: 10.3390/nano11071867
- Abdelaal, M. M.**, Mohamed, S., Barakat, Y. F., Derbala, H. A. Y., Hassan, H. H., & Al Zoubi, W. (2018). **N-Aminophthalimide as a Synthron for Heterocyclic Schiff bases: Efficient Utilization as Corrosion Inhibitors of Mild Steel in 0.5 mol.L⁻¹ H₂SO₄ Solution.** *Egyptian Journal of Chemistry*, 61(3), 539-558. DOI:10.21608/ejchem.2018.2414.1198
- Abdel-Aal, M.M.**, et al., **Mild steel corrosion inhibition in sulphuric acid solution using some Schiff base compounds.** (2016). Bulletin of Tabbin Institute for metallurgical studies, 104.

Conferences:

- Facile synthesis of sodium superionic conductor-structured NaTi₂(PO₄)₃/C nanocomposites toward efficient sodium-ion storages.** Annual meeting of Taiwan Ceramic Society. 2022-05-21 | Conference abstract.
- Template-Free Strategy for Synthesizing Nitrogen-Doped Activated Carbon as Efficient Electrode Materials for Supercapacitors.** TwICHe (Win-Win Academia and Industry of Chemical Engineering). 2022-01-07 | Conference abstract
- Polymer-derived Nitrogen-doped Carbon Materials with Hierarchically Porous Architectures toward Capacitive Performances for Lithium-ion Capacitors.** ACTSEA 2021 7th

International Symposium on Advanced Ceramics and Technology for Sustainable Energy Applications toward a Low Carbon Society. 2021-11-15 | Conference poster.

Achieving Enhanced Electrocatalytic Performance towards Hydrogen Evolution of Nickel Sulfide Nanostructure via Incorporating Porous Carbon. 16th National Conference on Hydrogen Energy and Fuel Cell & 8th Taiwan Energy Association Annual Meeting — HEFC2021. 2021-09-02 | Conference poster.