Omar Tantawi

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Education

Aug 2020-May 2025 **Massachusetts Institute of Technology (MIT)** Cambridge, MA, USA
Degree: PhD student, Civil and Environmental Engineering
Thesis advisor: Prof. Desiree Plata
GPA: N/A

Aug 2018-July 2020 **Purdue University** West Lafayette, IN, USA
Degree: Ms. Environmental and Ecological Engineering
Thesis advisors: Prof. Inez Hua (Chair), Prof. John Howarter and Dr. Nadya Zyaykina
GPA: 3.8/4

Sep 2013-Jun 2017 **American University of Beirut (AUB)** Beirut, Lebanon
Degree awarded: Bachelor of Science in Chemistry
Advisor: Prof. Antoine Ghauch
GPA: 3.4/4

Scholarships and awards

Aug 2020- Jan 2021 **MIT CEE Department Fellowship, The GSO Gifts**
Received MIT CEE Departmental Fellowship, the GSO Gifts for Fall 2020.

Aug 2018- July 2020 **Full graduate scholarship - Fulbright foreign student scholarship**
Received the Fulbright full scholarship to pursue Msc. Environmental and Ecological Engineering (EEE) at Purdue University

Sep 2013- Jun 2017 **Full undergraduate scholarship - USAID**
Awarded full scholarship to study BS. Chemistry at the American University of Beirut fully funded by USAID

Research experience and publications

Aug 2020- present **Graduate Research Assistant** Cambridge, MA, USA
Conducting research related to sustainable biopolymers development and understanding biopolymers fate in the environment.

Aug 2018- July 2020 **Graduate Research Assistant** West Lafayette, IN, USA
Conducted research related to sustainable materials and electronics-case of smartphones.

Feb 2016- Jun 2018 **Research Assistant at AUB** Beirut, Lebanon
Conducted research during my undergraduate and after graduation related to advanced oxidation processes and analytical environmental chemistry.

Published work:

1. Hakim, S. A., Baalbaki, A., Tantawi, O., & Ghauch, A. Chemically and thermally activated persulfate for theophylline degradation and application to pharmaceutical factory effluent. *RSC Advances* **2019***, 9*(57), 33472-33485. doi:10.1039/c9ra05362j

2. Ghauch, A.; Baalbaki, A.; Amasha, M.; Asmar, R. E.; Tantawi, O. Contribution of Persulfate in UV-254 nm Activated Systems for Complete Degradation of Chloramphenicol Antibiotic in Water. *Chemical Engineering Journal* **2017**, *317*, 1012–1025.

3. Tantawi, O.; Baalbaki, A.; Asmar, R. E.; Ghauch, A. A Rapid and Economical Method for the Quantification of Hydrogen Peroxide (H2O2) Using a Modified HPLC Apparatus. *Science of The Total Environment* **2019**, *654*, 107–117.

4. Alnarabiji, M. S.; Tantawi, O.; Ramli, A.; Zabidi, N. A. M.; Ghanem, O. B.; Abdullah, B. Comprehensive Review of Structured Binary Ni-NiO Catalyst: Synthesis, Characterization and Applications. *Renewable and Sustainable Energy Reviews* **2019**, *114*, 109326.

Conference papers and presentations:

1. O Tantawi, N Zyaykina, I Hua. Evolution of Smartphones Metal Content with its Fast-Improving Functionalities. *The 20th IEEE International Conference on Nanotechnology*, **2020**.

2. A Ghauch, O Tantawi, A Baalbaki, R El Asmar. A rapid and economical analytical method for the quantification of H2O2 in industrial treated effluents. *Abstracts of papers of the American Chemical Society 256,* **2018**.

3. A Ghauch, M Amasha, A Baalbaki, R El Asmar, O Tantawi. Degradation of antibiotics in UV-persulfate activated systems: Application to Chloramphenicol. *Abstracts of papers of the American Chemical Society 253,* **2017**.

Leadership, projects and extracurricular activities

Aug 2018- May 2020	**EEE GSO at Purdue University** Positions held: President (2019-2020) and Chair of professional development (2018-2019) of the EEE Graduate Student Organization (EEE GSO) at Purdue University	West Lafayette, IN, USA
Aug 2016-Jul 2017	**United Nations Global Compact Network Lebanon** Volunteer at Global Compact Network Lebanon	Beirut, Lebanon
Oct 2016	**"Think Globally, Act Globally"** Selected to participate as an environmental chemist in International conference and training, coordinated by Crossing Borders NGO, called "Think Globally, Act Globally" where there were participants from 12 countries.	Bornholm, Denmark
Jul 2016	**"Climate Change Youth Ambassadors 2016"** Selected to participate in international training called "Climate Change Youth Ambassadors 2016" we were four groups from Lebanon, Denmark, Italy and Jordan.	Copenhagen, Denmark
Aug 2014- Sep 2016	**Launched community-based project with USAID and AUB** Planned and implemented solid waste management project in Aidamoun village-North Lebanon funded by USAID.	Akkar, Lebanon

Summary Skills

Computer Skills: basic C++, basic python, VBA, Microsoft office (i.e. Excel, Word).

Languages: Fluent in English, native Arabic, and good in French.