

Dr Ahmed M.E. Khalil, AFHEA, PhD, MSc, BEng

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PROFESSIONAL PROFILE

Innovative researcher and academic with 12+ years in **nanotechnology, sustainable materials, and chemical/environmental engineering**. Recognised for advancing sustainable technologies and education globally, with roles at University of Exeter, Kyushu University, and Cairo University. Accredited Associate Fellow of the Higher Education Academy with substantial contributions towards net-zero targets. Expertise in project management, industry collaboration, and high-impact publishing, aimed at fostering circular economy and sustainability practices.

SKILLS

- **Software:** FactSage, COMSOL, DYNSIM, Aspen HYSYS, MATLAB, Prezi, Adobe Suite
 - **Research:** Project management (APM PMQ), interdisciplinary collaboration, data analysis, lab proficiency (SEM-EDS, XRD, AFM, etc.)
 - **Teaching:** Experience with UK, Japanese, and Egyptian curricula; developed and taught modules in Chemical engineering, water systems and environmental engineering
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PROFESSIONAL EXPERIENCE

University of Exeter

Postdoctoral Research Fellow Studies

Nov 2021 – Sept 2024

Postdoctoral Research Associate Studies

Oct 2018 – Oct 2021

Cairo University, Egypt

Lecturer in Chemical Engineering

Mar 2018 – Sept 2018

- Advised students and contributed to curriculum development.
- Participated in departmental committees for curriculum and faculty hiring.

Kyushu University, Japan

Researcher

Oct 2017 – Dec 2017

- Focused on advanced nanomaterial composites, supervised students, and co-organized the **IEICES** conferences.

Cairo University, Egypt

Research and Teaching Assistant in Chemical Engineering

Jan 2011 – Sept 2014

EDUCATION

PhD in Chemical and Environmental Engineering

Kyushu University, Japan, 2014 – 2017

Research: Enhancing nanoscale zero-valent iron (nZVI) for water treatment. Funded by the **MEXT scholarship**.

MSc in Chemical Engineering

Cairo University, Egypt, 2012 – 2014

Thesis on thermodynamic optimisation techniques, funded by Cairo University.

BEng in Chemical Engineering

Cairo University, Egypt, 2005 – 2010

Graduated with Distinction. Developed gas processing solutions for UGDC.

AWARDS & FUNDING

- **Associate Fellowship** – Higher Education Academy, 2023
 - **First Prize** in Sensors & AI, Advanced Ceramics Show, 2023
 - **MONBUKAGAKUSHO Scholarship** – Japan, 2014-2017
 - **Excellence Awards** – Cairo University, Egypt (2010, 2014)
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PUBLICATIONS & PROFESSIONAL ACTIVITY

Published **31 peer-reviewed articles** with 1667 citations (October 2024), including in *Chemical Engineering Journal* and *Journal of Materials Science & Technology*. Journal reviewer for *Nature Scientific Reports*, *Journal of Cleaner Production*, among others. Full publication list available on request.

SELECTED SECONDMENTS & INDUSTRIAL TRAINING

- **Trent Refractories Ltd** – Advanced sustainable refractory production, 2023
- **Wienerberger UK** – Cementitious material development, 2023
- **Internships at Yonsei University** (Korea), **Schlumberger**, and **GEMMA**

LANGUAGES

- **English:** Fluent | **Arabic:** Native | **French:** Very Good | **Japanese:** Good | **Turkish:** Fair

REFERENCES

Available upon request.