



Barcelona, Spain | March 16-18, 2026

2026 The 16th International Conference on KEY ENGINEERING MATERIALS

16th
ICKEM
2026

Track 3: Advanced Materials for Environmental Engineering

Abstract of the track:

Background: The development of advanced engineering materials has become essential for overcoming critical environmental challenges related to water treatment, pollution control, and sustainable resource management.

Subject: This track highlights recent advances in the synthesis, processing, characterization, and performance evaluation of functional materials designed for environmental engineering applications. Topics include nanostructured metal oxides, carbon-based materials, metal-organic frameworks, polymeric and biopolymeric composites, membranes, and smart multifunctional coatings. Emphasis is placed on structure-property-performance relationships, material durability, scalability, and integration into engineering systems for wastewater treatment, desalination, pollutant removal, and corrosion mitigation.

COMMITTEE MEMBERS

Track Chair

- **Prof. Marwa Elkady**, Egypt-Japan University of Science and Technology

Track Co-Chairs

- **Prof. Hassan Shokry**, Egypt-Japan University of Science and Technology
- **Dr. Mahmoud Samy Abdelghafar Azab**, Mansoura University
- **Dr. Mohamed Mohamed Gaber**, Egypt-Japan University of Science and Technology

Invited Speakers

- **Prof. Ahmed Elshazly**
- **Prof. Mohamed Elkouly**

Track Topics

- Nanostructured and functional materials for water and wastewater treatment.
- Metal oxides, carbon-based materials, and hybrid composites for pollutant removal.
- Metal-organic frameworks (MOFs) and porous materials for environmental applications.
- Polymeric, biopolymeric, and membrane materials for desalination and water reuse.
- Photocatalytic and catalytic materials for degradation of organic contaminants.
- Adsorptive materials for removal of heavy metals, dyes, and emerging pollutants.
- Self-healing and smart materials for corrosion protection.
- Sustainable, waste-derived, and eco-friendly materials for circular economy solutions.

PAPER PUBLICATION

 **Scientific.Net**
Publisher in Materials Science & Engineering

Submitted papers will be Peer-Reviewed (Double blind, and conducted by the technical program committee) and the accepted ones will be published in the conference proceedings, it will be indexed by **Scopus**.

IMPORTANT DATES

Submission Deadline: January, 31, 2026

SUBMISSION METHOD

All submitted papers must be clearly written in excellent English and contain only original work, which has not been published nor is currently under review for any other journal or conference. **Full Paper** is requested for publication purpose. With presentation only purpose, please just submit an **abstract**.

conference submission link:

<http://confsys.iconf.org/submission/matdes2026>

Paper Template Download:

https://matdes.org/files/Template_General.doc

Contact us

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