



Barcelona, Spain | March 16-18, 2026

16th
ICKEM
2026

2026 The 16th International Conference on KEY ENGINEERING MATERIALS

Track 4: Correlative experimental and theoretical studies of key engineering materials and systems

Abstract of the track:

Background: Nowadays fast progress of characterization and simulation techniques paves the way towards the resolution of traditional Materials Science problems and critical reassessment (revisiting) of established views on phase and structure transformations; elastic, plastic, creep and fracture behavior of inhomogeneous materials; generation and growth of microstructural defects; surface phenomena and many others. Operando experimental investigations and explicit FE modelling are of especial significance for many applied materials – robust prediction of service life limits is an evergreen demand in practical applications and extreme conditions.

Subject: Developing materials, advances in experimental structure and properties characterization, data matching and correlation.

COMMITTEE MEMBERS

Track Chair

- **Dr Alexey Salimon**, Skolkovo Institute of Science and Technology, Russia

Track Co-Chairs

- **Dr Kalin Dragnevsky**, University of Oxford, UK
- **Jingwei Chen**, Zhejiang University, China
- **Prof Aleksandar Sedmak**, University of Belgrade, Serbia

Invited Speakers

- **Alexander Korsunsky**, Skolkovo Institute of Science and Technology, Russia
- **Eugene Statnik**, National University of Science and Technology MISIS, Russia

Track Topics

- **Residual stress evaluation – modelling, measurements, methods, applications**
- **Additive manufacturing – modelling of thermal history, structure and properties predictions, new approaches in design for additive fabrication and topological optimizations**
- **Bimetals and metal-ceramic hybrids: coatings, composites, sandwiches – interface problems and failure mechanisms**
- **Energy storage materials – mechanisms of structure degradation and charge-power decay**
- **Developing materials – problems of structure integrity**

PAPER PUBLICATION



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: February 20, 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

Secretary: Karol Chen

Email: ickem@young.ac.cn

Website: www.ickem.org

Tel: +001-6193091099 (EN)