

AMT 2026



ADVANCED MATERIALS AND TECHNOLOGIES

Advanced Materials and Technologies (AMT) 2026 Conference
June 14th-17th | Łódź, Poland

Experimental Materials Science for Nuclear Applications symposium organized by NOMATEN Centre of Excellence

<https://amt2026.syskonf.pl/>

This symposium highlights experimental advances in the design and characterisation of radiation-resistant materials for nuclear applications, with emphasis on long-term stability under extreme service conditions. The session brings together experimental researchers working on metallic alloys, coatings, and complex material systems for current and next-generation nuclear technologies.

The symposium covers the full experimental pathway from materials synthesis, alloy and coating design, and advanced manufacturing to microstructural, thermal, mechanical, and irradiation-response characterisation. Special attention is given to understanding radiation-induced defect evolution, phase stability, segregation phenomena, mechanical degradation, and thermal behaviour in materials exposed to reactor-relevant conditions.

Key Topics

- Development of radiation-resistant materials for nuclear applications
- Synthesis, processing, and advanced manufacturing of nuclear materials
- High-entropy alloys, ferritic/martensitic steels, nickel-based alloys, and protective coatings
- Radiation-induced defects, segregation, hardening, and phase evolution
- Microstructural, mechanical, thermal, and irradiation-response characterization
- Materials performance under high-temperature, corrosive, and accident-tolerant conditions
- Experimental approaches to the development and evaluation of materials for advanced nuclear systems

Invited speaker



Assoc. Prof. Pavel Souček
Department of Plasma Physics and
Technology, Faculty of Science,
Masaryk University, Brno, Czech Republic

Organisers



Assoc. Prof. Łukasz Kurpaska
Director
NOMATEN Centre of Excellence,
National Centre for Nuclear
Research (NCBJ), Otwock, Poland



Dr inż. Magdalena Gawęda
Chair of symposium
NOMATEN Centre of Excellence,
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