

Thematic symposium


Environmentally assisted degradation and fracture of materials: advanced characterization and modelling


This Thematic Symposium is organized under the auspices of the Technical Committee 10 “Environmentally Assisted Cracking – EAC” of the European Structural Integrity Society (ESIS) <https://www.structuralintegrity.eu>. We kindly like to invite you to submit your abstracts to the thematic session organized within the framework of the ICSI 2023 conference. The tentative description of the symposium can be found below:

Extension of the service life of engineering structures through protection against environmentally induced damages (e.g., corrosion) has been driven by market demand to face technically and economically challenging requirements. This session is open to scientists and engineers working in applied research in the field of materials development, damage development as well as protection against corrosive degradation and fracture. The present symposium will be focused on aspects of corrosion-induced damage, environmentally assisted cracking formation and propagation, including modelling for the prediction of structures’ service life.

Contributions on new approaches and results concerning materials optimization, characterization methods (both destructive and non-destructive) and modelling applied to corrosion engineering and hydrogen embrittlement are very welcome in this session. The focus of this session is to bring researchers of the above fields together to exchange ideas and perform discussions on the new concepts.


Organizing Committee


Prof. Roelf (RJ) MOSTERT, *Department of Materials Science and Metallurgical Engineering, University of Pretoria, South Africa*  roelf.mostert@up.ac.za

Dr. Christina – Margarita CHARALAMPIDOU, *Department of Financial and Management Engineering, University of the Aegean, Greece*  c.charalampidou@aegean.gr

Prof. Mikhail ZHELUDKEVICH - *Hereon Helmholtz Zentrum, Germany*  mikhail.zheludkevich@hereon.de

Prof. Jesus TORIBIO, *Department of Materials Engineering, University of Salamanca, Espagna*  toribio@usal.es

Prof. Hryhoriy NYKYFORCHYN, *Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Lviv, Ukraine*  nykyfor@ipm.lviv.ua

Prof. Nikolaos ALEXOPOULOS, *Department of Financial and Management Engineering, University of the Aegean, Greece*  nalexop@aegean.gr

Important notes:

- The abstract should be prepared according to the template, which can be downloaded from www.icsi.pt/files/2023/abstract_icsi2023.docx and submitted by email to icsi@icsi.pt before March 31, 2023
- When submitting your abstract to ICSI2023 please mention the name of the Thematic Symposium - “Environmentally assisted degradation and fracture of materials: advanced characterization and modelling”.
- Accepted conference papers within this Thematic Symposium will be published in the Elsevier Procedia Structural Integrity journal (<https://www.sciencedirect.com/journal/procedia-structural-integrity>) indexed in the major databases, including Scopus and Web of Science.
- Please inform us about your submission (intention to submit) to nalexop@aegean.gr so as to plan and organize the Symposium’s sessions properly, along with the name, affiliation, and email address of the corresponding author and the names of co-authors.