



1st Biennial ESIS-CSIC Conference on Structural Integrity (BECCSI 2025), in period November 25-28, 2025 (www.beccsi2025.com)

Title of the minisymposium:

Corrosion and Hydrogen Embrittlement of Advanced Materials

ESIS TC21 minisymposium: Hydrogen Embrittlement and Transport

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Short description of the minisymposia:

This minisymposium will focus on the corrosion behavior and hydrogen embrittlement mechanisms in advanced structural and functional materials, such as high-entropy alloys, additively manufactured steels, and titanium-based alloys. Emphasis will be placed on the interaction between microstructure, service environment, and corrosion resistance, as well as the influence of hydrogen on the mechanical properties of materials. Both experimental and simulation-based approaches to understanding hydrogen embrittlement and corrosion phenomena will be explored. Contributions addressing innovative strategies for mitigating these issues, as well as design principles for developing materials with improved corrosion and hydrogen embrittlement resistance, are highly encouraged.

Please, indicate on BECCSI registration and submission form

(<https://www.beccsi2025.com/authorscenter/>) that you want to participate to this minisymposia and send an email to luohong@ustb.edu.cn and mdjukic@mas.bg.ac.rs