



Contribution ID: 17

Type: not specified

New observations on fatigue crack growth using acoustic emission

Thursday, 29 June 2023 11:15 (20 minutes)

With the development of hardware capabilities in the field of acoustic emission signal measurement, the directional radiation of elastic waves from a fatigue crack-type source has been observed. The configuration of the sensors on a model pipe-type body is based on a detailed numerical analysis. It allows the confirmation of the effect of random directionality of the emission source, which has been neglected in industrial standards up to now. Although this effect has been observed repeatedly on other shapes of loaded bodies, numerical models have not yet provided a satisfactory hypothesis for this phenomenon. A series of experiments on bodies of different shapes and sensor configurations are being prepared to specify the conditions for its occurrence.

Primary author: Mr CHLADA, Milan

Co-authors: Dr KOBER, Jan (Institute of Thermomechanics of the CAS, v. v. i.); Dr ŠTEFAN, Jan (Institute of Thermomechanics of the CAS, v. v. i.)

Presenter: Mr CHLADA, Milan

Session Classification: Defectoscopy