Institute of Thermomechanics Seminar
https://www.it.cas.cz/en/institute-of-thermomechanics-seminar-program

Lecture No. 92

Czech Society for Mechanics and Institute of Thermomechanics, CAS

invite you to a lecture and discussion within
the lecture series **Institute of Thermomechanics Seminar**

Corrosion study in subcritical and supercritical water: An electrochemical approach

given by

Prof. Jan Macák

Department of Power Engineering
Faculty of enviromental technology
University of Chemistry and Technology Prague

Interest in supercritical water (SCW) is motivated by its use for different purposes: supercritical water is used as a working fluid and coolant in fossil-fueled power plants, supercritical water oxidation systems are designed for destruction of dangerous waste and a supercritical water-cooled reactor (SCWR) was selected as one of the six Generation IV International Forum concepts selected for further investigation. The experimental corrosion data obtained for SCW supported the corrosion model assuming a superposition of two parallel corrosion processes: a "chemical oxidation" (CO) mechanism and an "electrochemical oxidation" (EO) mechanism. Validity of this model was confirmed by in-situ electrochemical impedance spectroscopy measurements.

The lecture will be held on Wednesday, September 16, 2020 at 10:00 in the building of the Institute of Thermomechanics (lecture room B), Dolejškova 5, 182 00 Prague 8

Contact persons: Radek Kolman, Hanuš Seiner