

Technical Meeting on Compatibility Between Coolants and Materials for Fusion Facilities and Advanced Fission Reactors



Monday, 30 October 2023 - Friday, 3 November 2023

Vienna, Austria (virtual participation possible)

Scientific Programme

1 Material coolant interactions: experiments and modelling

Corrosion and mass transfer, codes for mass transfer simulation

Corrosion mitigation strategy

Impact on material behaviour

2 Irradiation effects in cooling environments

Irradiation effects in cooling environments

3 Chemistry and coolant quality control, in-service online monitoring

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4 Thermal-hydraulics, magnetic field, and other effects on material behaviour

Thermal-hydraulics

Magnetic field

5 Tools for characterization of materials behaviour: corrosion, mechanical behaviour, effect of neutrons-ions

Devices for corrosion, loops for mass transfer, corrosion test standardization

Mechanical tests, small-scale specimen testing

Irradiation capability and hot labs for testing and characterization

Advanced characterization for corrosion kinetics and interface reaction

Codes and standards to support design

6 Behaviour and characterization of additive manufacturing material in presence of harsh environment

Behaviour and characterization of additive manufacturing material in presence of harsh environment