

Joint Session "Coatings for High Temperatures"

Co-organized by

WP 3 "Corrosion by Hot Gases and Combustion Products"

and WP 14 "Coatings"

The key to a reliable operation of components for sufficiently long service times under high temperature conditions lies to a large extent in the properties of the materials used, with high temperature corrosion resistance as the major life and performance-limiting factor. As conventional alloy design invariably leads to a compromise between mechanical strength and corrosion resistance, industry nowadays applies coatings to provide improved materials high temperature performance.

Consequently great efforts are being made worldwide in order to develop high performance protective coating systems, to prevent or minimise damage by corrosion, as well as by abrasion, wear and erosion at elevated temperatures. Many of these systems (which may consist of surface modified bulk materials or genuine coating systems) are based on a systematic development starting from present theoretical understanding, including thermodynamic calculations as well as laboratory data, and ending up in tailor-made solutions for industrial applications.

The aim of this joint session to be held again during EUROCORR 2024 is therefore to present recent approaches for the improvement of the high temperature corrosion resistance of different materials by surface modification or coatings as originating from research in the high temperature materials or coatings field. Contributions from academics and industrials from both research fields are welcome.

We are looking forward to your contribution to our joint session at EUROCORR 2024 and would appreciate to meet you in Paris!

Mathias Galetz Chair WP 3 "Corrosion by Hot Gases and Combustion Products" Wolfram Fürbeth Chair WP 14 "Coatings"