

ZIRCONIUM ALLOY CLADDING WITH CHROMIUM COATING: DIFFUSION-REACTION MECHANISMS AND STRUCTURAL DEGRADATION UNDER EXTREME TEMPERATURES

This study establishes a Zr-Cr diffusion mechanism model to quantitatively reveal Cr concentration profiles, ZrCr₂ layer growth kinetics, and defect formation mechanisms based on an experimental investigation, providing theoretical support for failure prediction and emergency strategies in extreme conditions.

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Session Classification: 2

Track Classification: Experimental Testing of ATF Materials and Validation Database