



Some insights into the use of low pressure hydrogenated steam and supercritical water as subrogated environments of PWR primary water.

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Oxidation and stress corrosion cracking tests in low pressure hydrogenated steam and in supercritical water (SCW), at temperatures up to 500°C, are being carried out, by different labs, to assess the viability of internal oxidation mechanism and to accelerate the SCC response of nickel based alloys in PWR primary conditions. Studies carried out in both environments together with the use of advanced characterization techniques could improve the understanding of the role of some of the contributing factors to the PWSCC of nickel based alloys. Results from different labs will be discussed and open points will be identified.