

Characterization of Microstructure and Mechanical Properties of Zirconium Alloy Welds in PHWR Fuel Rods



Gyeongsik Yu^a, Sangeun Kim^{a,b}, Hyung-Ha Jin^b, *Chansun Shin^a a Department of Materials Science and Engineering, Myongji University, Yongin, 449-728 Korea b Nuclear Materials Safety Research Division, Korea Atomic Energy Research Institute (KAERI), Daejeon, 305-353 Korea



presumed that the primary cause of fuel rod detachment is damage and deterioration resulting from the hardness differences caused by ion irradiation in the welded joint. 4. In future studies, mechanical properties will be evaluated through tensile tests and transmission electron microscopy (TEM) after conducting a hydride injection test. This evaluation aims to confirm the