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Helium irradiated tungsten samples were introduced and exposed in LHD. After series of exposure, the surface was observed by scanning electron microscope and transmission electron microscope. It was found the morphology and optical property were changed by the sputtering and deposition on the surface. (Shin KAJITA *et al.*, Plasma and Fusion Research Vol. 10, 1402083 (2015) <http://www.jspf.or.jp/PFR/>)