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Electron microscope images for the surface of hydrogen permeation materials before (upper pictures) and after (lower ones) corrosion tests in molten salt Flinak (LiF+NaF+KF). Particles of corrosion products are observed in the surface after the corrosion. In order to recover the tritium fuel bred in fusion blanket, hydrogen permeation metals resistant to high temperature corrosion are required. Not only the practical material, Pd-Ag alloy, but also the group 5 metals, i. e., V, Nb, and Ta, and their alloys showing superior hydrogen permeability are promising candidates. (Takuya NAGASAKA *et al.*, Plasma and Fusion Research Vol. 6, 1405146 (2011) <http://www.jspf.or.jp/PFR/>)

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