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Liquid Lithium Limiter for Carbon Wall Conditioning on RFX-mod R. CAVAZZANA, P. SCARIN, G. SPIZZO, M. AGOSTINI, G. DE MASI, L. MARRELLI, M.E. PUIATTI, Consorzio RFX, Associazione Euratom-ENEA - 35127 Padova, Italy, G. MAZZITELLI, Associazione Euratom-ENEA, Centro Ricerche di Frascati - 00064 Frascati, Rome, Italy — The *Li*quid *Li*thium *Li*miter (*Li3*) with capillary porous system originally developed for the FTU tokamak, has been tested for the first time on the Reversed Field Pinch RFX-mod, a machine equipped with a first wall completely covered by graphite tiles. The operation in limiter configuration was restricted by a defect on the limiter, which coupled with the plasma wall interaction with a relatively limited power (2-3 MW/m^2) caused a damage to the device. The *Li3* has then been operated as an evaporator, being the Lithium depositions preceded by prolonged glow discharges in Helium to remove the Hydrogen trapped into the graphite. The enhanced retention capability and the lowered recycling factor of the first wall obtained with this treatments in respect to standard operational conditions, allowed a good degree of control on the density of the RFP discharges and to reach high density regimes at high current ($n/n_{Greenwald}$ ~ 0.8 at plasma current ~ 1.6 MA).

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