Contribution ID: **268** Type: **not specified**

Design and preliminary testing of a sieve tray column for PbLi purification

Monday, 17 September 2018 11:00 (2 hours)

Future designs of fusion devices are going to make use of a tritium production systems, several of which are considered using PbLi alloy as a breeder. Apart from tritium, other volatile and non-volatile species are being formed, either as products of the neutron irradiation or as corrosion products. The volatile impurities must be eliminated based on safety concerns (e.g. polonium) or blanket system malfunctions concerns (e.g. helium). For these, a gas-liquid contactor appears to be a suitable unit. A promising arrangement of the gas-liquid contactor is a column using a sieve tray as liquid PbLi distributor allowing certain free falling height for the desired purification to take place. This contribution presents details of the design and initial testing of such unit with the aim to remove highly volatile compounds by desorption into a stream of inert gas at ambient pressure.

Co-author: KORDAC, Michal (Research Center Rez)

Presenter: KORDAC, Michal (Research Center Rez)

Session Classification: P1