Contribution ID: **128** Type: **Poster**

【3003】Progress towards a positron trap at SMI

Tuesday 31 August 2021 19:02 (1 minute)

A powerful and adaptable tool for performing experiments with positrons and positronium, is a positron trap. Positrons can be confined by using magnetic and electric fields combined with Nitrogen and CH_4 buffer-gas. Such a device can produce ~10^5 e^+/s in bunches with a diameter of 1-2 mm and an energy spread of approximately 50 meV.
Such a trap is under construction at SMI and will be used in order to perform the first precise measurement of the binding energy of molecules containing positronium, such as PsH and PsO.
This poster will describe the progress on the development and construction of the positron trap at SMI.

Primary author: WEISER, Alina (Austrian Academy of Sciences (AT))

Co-author: MURTAGH, Daniel James (Austrian Academy of Sciences (AT))

Presenter: WEISER, Alina (Austrian Academy of Sciences (AT))

Session Classification: Poster Session

Track Classification: Nuclear, Particle- and Astrophysics (FAKT - TASK)