Contribution ID: **210** Type: **Poster presentation**

Towards sympathetic cooling of antiprotons through laser-cooling of trapped anionic molecules

Thursday, 7 October 2021 18:40 (5 minutes)

A successful cooling of anionic C2- would open up novel experiments based on sympathetic cooling of antiprotons and other anionic systems to sub-Kelvin temperatures. C2- and other anionic molecules produced in an electric discharge in an Even-Lavie valve are accelerated to 1.8 keV in a pulsed electric field; the C2- is then mass selected in a Wien filter. Subsequent deceleration in the static electric field of a deceleration tube with a potential difference of 1.8 kV reduces the energy of the particles to a trappable range. A self-built Paul trap on the same 1.8 kV potential stores the C2- molecules for subsequent experimentation with cooling lasers.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

Borealis, CERN

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

Yes

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Session Classification: Poster Session