

# The 13th International Conference on Stopping and Manipulation of Ions and related topics (SMI-2019)



Contribution ID : 30

Type : not specified

## Barium Ion Transport in High Pressure Xenon Gas using RF Carpets

*Tuesday, 16 July 2019 11:30 (30)*

A background-free measurement of neutrinoless double beta decay can be achieved with the detection of the daughter nucleus. Methods to image the daughter barium ion in the decay of xenon-136 are being developed for use in high pressure gas time projection chambers by the NEXT collaboration. A major remaining challenge is the transport of the barium ion to a small imaging region within the detector. In this talk I will discuss the plans for testing RF carpet performance in high pressure gas, early simulation results, and experimental tests of RF high voltage behavior in high pressure systems. I will also discuss our studies of ion drift properties in DC fields in high pressure gases.

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