

## **Title: Noble gas purification for LZ and other liquid noble dark matter searches**

LZ will use a 10 ton dual-phase xenon Time Projection Chamber (TPC) to search for WIMP dark matter via direct detection. In order to achieve its radiopurity goals LZ, like other low-background detectors with noble element targets, faces the challenge of removing radioactive noble gases including Rn-222, Kr-85, and Ar-39. This talk will survey strategies used by various experiments to purify noble gases, with a focus on activated charcoal chromatography and radon emanation screening program employed by LZ.

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