



Contribution ID: 32

Type: **Presentation**

Metallic wire grid behavior and testing in low pressure gaseous noble elements detector.

Friday, 22 September 2017 12:00 (15 minutes)

This talk is about the light production and testing of metallic grids in a gaseous noble element detector. At SLAC, a small setup was built to study the grid behavior in various type of liquid noble gaseous environments. In this setup, prototype grid for LZ will be studied, as well as the influence of the electropolishing and passivation technique. The light production from electron emission resulting from surface fields on the wires and other possible sources is studied. Also, the relationship between light response and electron drift distance and electric field in different gaseous conditions is evaluated. This talk is also to going to discuss future studies of the relationship between testing the grid in gaseous and liquid detectors.

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Session Classification: Friday Morning 2

Track Classification: Detector techniques (HV, cryogenics, purification, calibration, etc.)