

# Workshop on Xenon Detector $0\nu\beta\beta$ Searches: Steps Towards the Kilotonne Scale

Contribution ID: 7

Type: **Lightning talk**

## FAT-GEM detectors for operation in noble elements

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We introduced in 2019 a new concept for electroluminescence in noble elements, based on very-thick acrylic-based perforated structures (Field-Assisted Transparent Gas Electroluminescence Multipliers, or FAT-GEMs). The structures, other than being radio pure, scalable and robust, are also transparent, opening to the possibility of enhancing light collection efficiency. In this work we present the result of the study of structures with wavelength shifting capability, thanks to the coating of the holes with TPB, which yielded up to 70% of the light collected with meshes, and energy resolutions in line with the values reported by leading experiments.

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