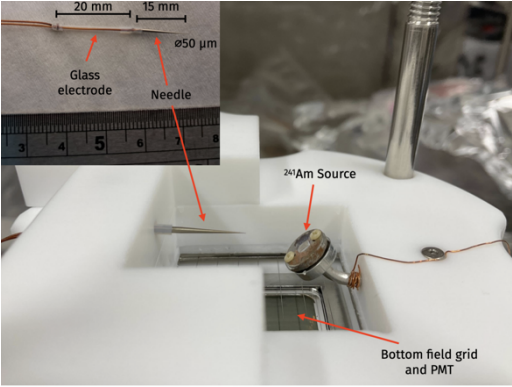
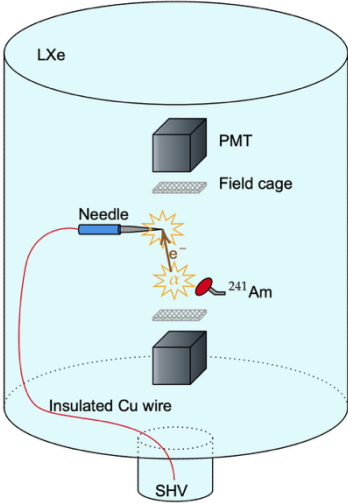
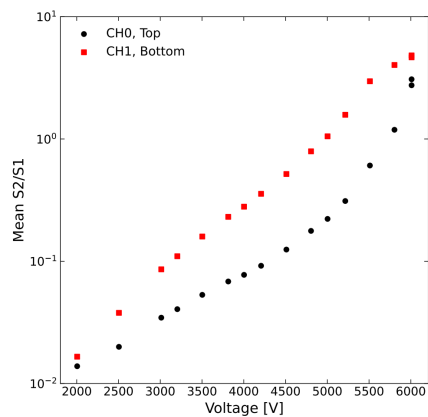


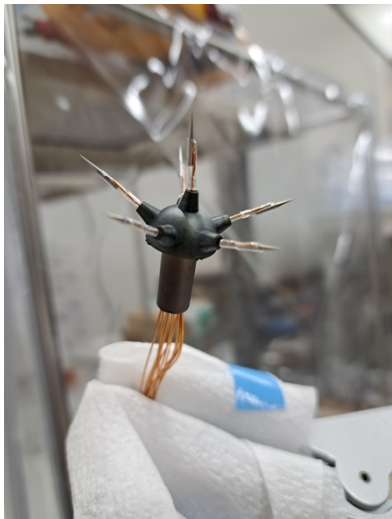
Research Result Report
ICRR Inter-University Research Program 2025

Research Subject: Towards a multiphysics liquid Xe TPC with scintillation and charge multiplication
Principal Investigator: Konstantinos Nikolopoulos
Participating Researchers: Patrick Knights, Lex Millins, Giovanni Rogers, Peter Walters, Ioannis Manthos, Hiroyuki Sekiya
Summary of Research Result : FY2024 saw the publication of the results from the successful tests in liquid xenon of the prototype electrode structure that were collected during a trip to the Kamioka Observatory. The schematic and a photo of the setup are shown below. 

shown in the figure below.



In FY2025 the design and implementation of a test ACHINOS sensor based on needles was achieved. This is shown in the figure below.



The test structure was installed and tests started in Liquid-Xenon during a trip to the Kamioka Observatory in early 2026. These tests are still on-going and another trip to the Kamioka Observatory is being organized for FY2026.