APPLICATION OF ELECTROLUMINESCENCE IN A PROTOTYPE FOR THE MEASUREMENT OF A LIQUID ARGON SCINTILLATIONS

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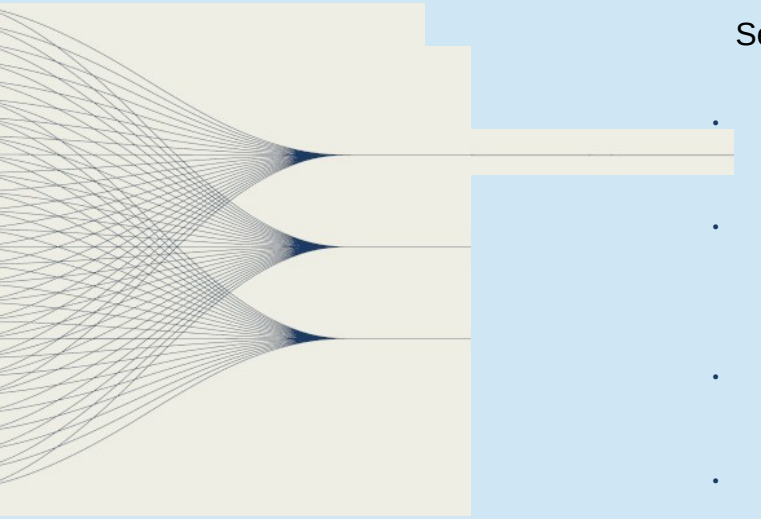

- Our poster is about the development of a new type of detecting system for measuring of argon-37 by registering scintillations in liquid argon samples, prepared from air.
- The main advantage of the new system is the multiple increase in the volume of the measured sample: in the measuring chamber with a capacity of 100 cm3, after liquefaction, 80 liters of gaseous argon will be placed, which is equivalent to 8 m3 of analyzed air.
- The prototype of detecting system was developed and tested, but did not provide sufficient efficiency in registering Auger electrons of argon-37.
- To increase the efficiency, the development of an electroluminescent measuring chamber with a central high-voltage heated electrode has begun.
- The expected increase in light output of at least tenfold will provide sensitivity sufficient for measuring the radioactivity of argon-37.
- If you want to find out more, come over for a chat in front of our poster

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