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Thermosyphon cryogenic system for RED-100 detector

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A cryogenic system based on a two-phase closed tubular thermosyphon with 12 mm diameter copper tube is developed. It was used for thermal stabilization of the liquid xenon emission detector RED-100. The nitrogen refrigerant cooled down with a free-boiling liquid nitrogen bath has been used. It was shown that the system supports the RED100 operation at temperature 166 K with accuracy ±1K.

Presentation type

Section talk (10+5 min)

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