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Informácia Referencie	Diskusia (0) Súbory
<u></u>	CMS Note
Report number	CMS-CR-2024-332
Title	Preliminary aging studies of improved RPC gaps operated with HFO based
	mixtures
Author(s)	Zubayda Eve Kofi
Publication	2024
Collaboration	CMS Collaboration
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Presented at	17th International Conference on Resistive Plate Chambers and Related Detectors, Santiago de Compostela, 09 - 13 Sep 2024
Subject category	Detectors and Experimental Techniques
Accelerator/Facility, Experiment	CERN LHC ; CMS
Keywords	Muons
Abstract	Resistive Plate Chambers (RPCs) at CMS experiment are operated with a gas mixture containing around 95\% Tetrafluoroethane (C ₂ H ₂ F ₄), commonly known as R-134a, which has a global warming potential (GWP) of 1430. In the framework of the CMS Upgrade project for the High Luminosity phase, new improved RPCs (iRPC) have been developed to enhance the legacy performances in the most RPC forward region of the experiment, shown in Fig. 1. To comply with European regulations and explore environmentally friendly gaseous mixture alternatives for long-term RPC operation, CMS RPC within the RPC EcoGas@GIF++ collaboration has launched a longevity study operating the chambers with HFO/CO2-based eco-friendly gas mixture. In this report, preliminary results of the aging study, after one year of irradiation at the Gamma Irradiation Facility at CERN are presented.
Záznam vytvorený 2	Naspäť k hľadaniu 025-01-13, zmenený 2025-01-13 Podobné záznamy

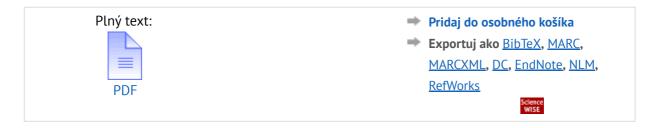
cds.cern.ch/record/2921396?ln=sk

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