Studies on new Eco-gas mixtures for Extreme Energy Events Project

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The Extreme Energy Events (EEE) experiment, a joint project of the Centro Fermi and INFN national research institutes, has a dual purpose: a scientific research program for measurements of the cosmic rays fluxes at ground level and an intense outreach program with an active contribution of students and teachers in the construction and operation of the detectors. The network counts 60 tracking detectors, each made by three Multigap Resistive Plate Chambers (MRPC) , operated so far with a gas mixture composed by 98% $C_2H_2F_4$ and 2% SF_6. Given its high Global Warming Potential (GWP), the collaboration started a R&D on alternative mixtures environmentally sustainable. Latest results on $C_3H_2F_4$ + He mixture are presented in the poster.