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Poster session - Submission of Abstract

Submitter:	Sebastian Fischer
	Karlsruhe Institute of Technology, Germany
	${ m sebastian.fischer@kit.edu}$
Author:	Sebastian Fischer for the KATRIN collaboration
Title of the poster:	Status of the windowless gaseous tritium source of KATRIN

Abstract text:

The aim of the Karlsruhe Tritium Neutrino experiment (KATRIN) is the modelindependent measurement of the neutrino mass by the investigation of the endpoint region of the tritium beta spectrum. For that purpose a windowless gaseous tritium source (WGTS) generates $\sim 10^{11}$ beta electrons per second. The beta electrons are adiabatically guided to an electrostatic spectrometer which measures the integrated beta spectrum by varying the spectrometer voltage. In order to reach the design sensitivity of 200 meV/c² (90% C.L.) on the neutrino mass, the key parameters of the WGTS, e.g. column density and beta activity, have to be stabilised to the 0.1% level and accordingly monitored. In this poster an overview of the WGTS, its instrumentation and the current status will be given.

Summary: Neutrino mass, KATRIN, tritium, windowless gaseous tritium source