

## Comparative aging studies on a Single Wire Proportional Chamber

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In this contribution the authors will present the result of two couples of tests performed on a Single Wire Proportional Chamber (SWPC). During the first test the SWPC was irradiated with X-rays and alpha particles sources with the same hit rate until the same integrated charge was reached. Nevertheless the performance loss during the X-ray irradiation was larger, traces of polymers were found on the wire only in the case of alpha irradiation. The second test was performed irradiating the SWPC with alphas and X-ray, but this time with the same anodic current. The irradiation continued until the wire chamber lost half of the initial gas gain. In the case of alpha irradiation the integrated charge needed for the goal was lower with respect to the one needed during the X-ray radiation. However the electron microscope analysis revealed, once again, a large polymer deposit on the alpha irradiated wire while no deposit was found on the X-ray irradiated one.

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