

## **TAU-4 installation intended for long-term monitoring of a half-life value of the $^{212}\text{Po}$**

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Description of the TAU-4 installation intended for long-term monitoring of the half-life value  $T_{1/2}$  of the  $^{212}\text{Po}$  is presented. Natural thorium used as a source of the mother's chain. The methods of measurement and processing of collected data are reported. Short testing measurements were made in the ground building (680 hours) and underground laboratory (564 hours). Averaged value  $T_{1/2}=294.09\pm 0.07$  ns of the  $^{212}\text{Po}$  half-life was found for the ground level data set similar one for the underground data set. The solar-daily variations with amplitudes  $A_{\text{So}}=(11.7\pm 5.2)\cdot 10^{-4}$  for the ground data and  $A_{\text{So}}=(7.5\pm 5.3)\cdot 10^{-4}$  for the underground one were found in a series of  $\tau$  values.

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