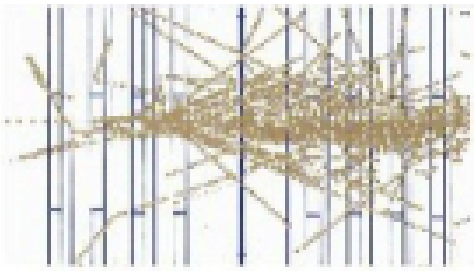

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Effects of temperature dependence of the signals from Lead Tungstate

Summary

We present results of beam tests performed in 2007 as part of the DREAM project. Previously, we already demonstrated that Lead Tungstate signals contain both scintillation and Cherenkov components. In order to further assess and evaluate the relative contribution of the Cherenkov component, we performed measurements at different temperatures, ranging from 13℃ to
45℃. Only the scintillation component was affected by the temperature change. Over this temperature range, the total light yield was measured to decrease by a factor of 2, while the relative Cherenkov contribution to the signals increased by the same factor. We also studied the decay time of the scintillation process and observed it to decrease as well.

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