

Abstract Submitted
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The study of Sci-Fi Trigger counter for a hadron photo production experiment at SPring-8 YUJIRO TSUCHIDA, Kyoto Univ. — In SPring-8, we are going to perform a hadron photo-production experiment with the new beam line by using a photon beam produced by the backward Compton scattering method. The timing of this scattering is synchronized to the interval of 2ns by RF signal in the synchrotron ring. In order to use RF signal as event start timing, we need the trigger timing with a time resolution of 300ps by using trigger counter covered with the target. Because the RF timing is very precise (15 ps) and enough to achieve high time resolution, we use RF signal for the beginning point of Time-Of-Flight measurement. In order to reduce multiple scattering, the thickness of this trigger counter should be less than 2mm. The scintillation fiber can easily change its shape and suit for this experiment. We have measured the geometric dependence of the time resolution and light intensity of scintillation fiber. We report the result of this measurement.

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