

Abstract Submitted  
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**Double-sided Silicon Strip Detector for the study of Double Hypernuclei I** TAKAYASU SEKIHARA, Kyoto University — Double-sided Silicon Strip Detector (DSSD) has been designed for the study of double hypernuclei. This DSSD is a key detector in BNL- E964, which uses a new emulsion-counter hybrid method to find 10 times more double hypernuclei than before. In BNL-E964,  $\Xi^-$  hyperons produced in the target ( $^{12}\text{C}$ ) by the  $\text{K}^- + \text{p}' \rightarrow \text{K}^+ + \Xi^-$  reaction, are stopped in the emulsion and double strangeness nuclei are produced. The two DSSD's are placed within 5 mm distance between the target and the emulsion. The DSSD is the best detector of tracking  $\Xi^-$  because of its high position resolution and thinness which allows  $\Xi^-$  passing the DSSD with minimum decay rate of  $\Xi^-$ . High position resolution of two DSSD's enables to trace the track of  $\Xi^-$  with high scanning efficiency in the emulsion to find double hypernuclei. Design criteria and details of its construction are presented.

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