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**Auto scanning system for the hybrid emulsion experiment.** T. WATANABE, K. NAKAZAWA, T. HIBI, T. KAMEYAMA, H. NAKAMURA, Gifu University, K. IMAI, K. MIWA, Kyoto University, H. SHIBUYA, S. OGAWA, Toho University, J.S. SONG, C.S. YOON, S.H. KIM, Gyeongsang Natl. University — Hybrid emulsion experiment, KEK-E373, had been carried out to study baryon-baryon interaction in  $S = -2$  sector via  $\Xi^-$  capture in the emulsion which produced  $(K^-, K^+)$  process. In the present, 3 hypernuclear events and 2 twin hypernuclear events are found. Furthermore a candidate of  $\Sigma^-$  emission events from  $\Xi^-$  capture is also found. These events give important information on  $B - B$  interaction. In the future, new experiments (BNL-E964 and one at J-PARC) are planned in order to study  $B - B$  interaction systematically. In the experiment, position of produced  $\Xi^-$ s in the emulsion was predicted from  $(K^-, K^+)$  reaction kinematics by analyzing counter data. Therefore, searching area of the emulsion could be limited and effective analysis could be realized. However, in the future experiments number of produced  $\Xi^-$  become 10 or more times than that of KEK-E373. And if the analyzing speed is enough to search all area of the emulsion, non-triggered  $\Xi^-$ s produced by  $K^-n \rightarrow K^0\Xi^-$  can be detected. In order to analyze these data, new auto scanning system have been developed. In the system CCD camera which shot the emulsion image don't stop in the analysis. Thus, dead time caused by go-stop process in changing search area become to 0.

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