## HAW05-2005-000222

Abstract for an Invited Paper for the HAW05 Meeting of the American Physical Society

## Search for pentaquark with $\gamma$ , $\pi^-$ and $\mathbf{K}^+$ beams

KENICHI IMAI, Kyoto University

Several experiments to search for the pentaquark,  $\Theta^+$ , have been made with  $\gamma$ ,  $\pi^-$  and K<sup>+</sup> beams at SPring8 and KEK-PS. It is important to observe the signal with both  $\gamma$  and hadron beams at low energies for the confirmation of  $\Theta^+$ . The KEK-E522 has searched for  $\Theta^+$  through  $\pi^-+p -> K^-+\Theta^+$  reaction. The KEK-E559 searches for  $\Theta^+$  through K+p ->  $\pi^++\Theta^+$  reaction with mass resolution of 1.3MeV(FWHM). Some results and status of these experiments are presented as well as those from SPring8.