

J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN# 29

Group	KOTO(E14)	Date (Submitted)	9 February 2010
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Experimenters	Komatsubara, Lim, Watanabe, Nomura (KEK), Nanjo, Shiomi, Kawasaki, Takahashi (Kyoto), Sato (Osaka), Shimogawa (Saga), Tajima (Yamagata), Ahn, Lee, Baek (Pusan), Ko (Cheju)		
Summary and Results			
<u>Beamline survey</u>			
<ul style="list-style-type: none"> • Collimator alignment • Halo neutron measurement by a new counter for KOTO (a segmented detector made of pure CsI crystals with WLSF readout) <ul style="list-style-type: none"> • A trial to measure neutrons close to the beam was done with air/vacuum in the beam region in the experimental area. • KL yield measurement using hodoscope and CsI mini-calorimeter <ul style="list-style-type: none"> • $KL \rightarrow \pi^+ \pi^- \pi^0$ decays were collected further. • Comparison between Ni and Pt targets was done. • KL yield measurement using spectrometer <ul style="list-style-type: none"> • Data were taken with full setup. • Photon yield measurement inside the beam <ul style="list-style-type: none"> • Yields as a function of gamma-absorber position were evaluated. • Core neutron measurement by a hadron calorimeter <ul style="list-style-type: none"> • The counting rates and spectra of neutrons and photons were measured at the downstream end of the experimental area. • Core neutron measurement by utilizing n-p scattering <ul style="list-style-type: none"> • A trial to measure neutrons and protons scattered by a target scintillator in the beam was done. 			
SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority etc.			
Repetition: 6 sec., Flat top: 2.63 sec.			
2010/1/19 23:55 - 1/20 10:00 User run, 4×10^{11} ppp (MR DCCT), Ni target - 1/20 07:32-08:45 MR QFR MPS			
2010/1/20 19:20 - 1/22 07:00 User run, 6×10^{11} ppp, Ni target - 1/20 21:40-23:02 MR tuning (single shot) to reduce beam loss - 1/21 04:20-05:30 SX:RQ MPS - 1/21 22:48-23:41 MR BM4 MPS (D1,2,3 A-stop 1,2)			
2010/1/27 22:05 - 1/29 07:00 User run, 1.3×10^{12} ppp; 1kW, Ni target			
2010/2/01 20:57 - 2/02 10:02 User run, 1.3×10^{12} ppp, Ni target			
2010/2/02 21:10 - 2/03 10:02 User run, 1.3×10^{12} ppp, Ni target (21:10-1:00), Pt target (1:00-10:00)			
<u>Comments/Requests</u>			