

## **J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN# 28**

<b>Group</b>	KOTO(E14)	<b>Date (Submitted)</b>	12 January 2010
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<b>Experimenters</b>	Komatsubara, Lim, Watanabe, Nomura (KEK), Nanjo, Shiomi, Maeda, Takahashi, Kawasaki (Kyoto), Yamanaka, Togawa, Sato (Osaka), Baek (Pusan), Shimogawa (Saga), Tajima (Yamagata)		
<b>Summary and Results</b>			
<u>Beamline survey</u>			
<ul style="list-style-type: none"> <li>• Collimator alignment <ul style="list-style-type: none"> <li>• Both 2 KL collimators were aligned by optimizing beam profile viewed by a profile monitor with fiber scintillators</li> </ul> </li> <li>• KL yield measurement using hodoscope and CsI mini-calorimeter <ul style="list-style-type: none"> <li>• The number of <math>KL \rightarrow \pi^+ \pi^- \pi^0</math> decays was evaluated with loose analysis cut (in order to keep statistics).</li> <li>• Comparison between Ni and Pt targets are in progress.</li> </ul> </li> <li>• KL yield measurement using spectrometer <ul style="list-style-type: none"> <li>• Data were taken with full setup (4 drift chambers).</li> </ul> </li> <li>• Test of in-beam photon detector <ul style="list-style-type: none"> <li>• Three modules were installed along the beam direction.</li> <li>• Counting rates and spectrum in various conditions were measured.</li> </ul> </li> <li>• Test of new collar counter <ul style="list-style-type: none"> <li>• Calibration was completed.</li> </ul> </li> <li>• Core neutron measurement by utilizing n-p scattering <ul style="list-style-type: none"> <li>• An array of neutron counters (thick plastic scintillators) was installed.</li> <li>• The first trial to measure neutrons scattered by a target scintillator in the beam was done.</li> </ul> </li> </ul>			
<b>SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority etc.</b>			
Repetition: 6 sec., Flat top: 2.63 sec. Target: Ni/Pt  2009/12/10 1:00- scheduled but cancelled, due to MR D1 Main PS A-stop → compensated by adding 12/23 run 2009/12/12 1:10-9:35 User run, $2 \times 10^{11}$ ppp (MR DCCT), Ni target 2009/12/13 13:10-15:07 Continuous SX for self inspection of HD facility, $7 \times 10^{11}$ ppp (MR DCCT), Pt target 2009/12/16 1:06-9:45 User run, $3 \times 10^{11}$ ppp (MR DCCT, 3 bunches), Ni target 15:50-16:40 Continuous SX for government inspection $7 \times 10^{11}$ ppp (MR DCCT), Pt target 2009/12/17 0:32-7:00 User run, $3 \times 10^{11}$ ppp (MR DCCT, 3 bunches), Pt target 2009/12/23 0:40-9:49 User run, $3 \times 10^{11}$ ppp (MR DCCT, 3 bunches, EQ/RQ ON) Ni target (0:40-7:20), Pt target (7:22-9:49)			
<b><u>Comments/Requests</u></b>			