

## J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN#46

		Date(submitted)	Jan.17, 2013
Group	T48(E36)	Beam line	K1.1BR
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<p>Summary and Results</p> <p>1) Beam instruments tuning: a BDC(Beam defining counter), TOF counters, 2 Gas Cherenkov counters, 2 Finger counters, and an Aerogel Cherenkov counter</p> <p>2) Muon Beam tuning: We extracted 250 MeV/c muon beam with mu/e ratio of about 0.5 on +-150 kV ESS voltage condition.</p> <p>3) Aerogel Cherenkov Counter test The AC counter efficiency was measured using 0.25 GeV/c e+ and mu+ beam for 6 different incident position and angle combinations with following conditions.</p> <ul style="list-style-type: none"> <li>● Aerogel n=1.05, TL=40 mm, 40 mmt, a Diffused mirror, a Winston cone (WC) ver. 2</li> <li>● Aerogel n=1.05, TL=40 mm, 40 mmt, the Diffused mirror, a WC ver. 1</li> <li>● Aerogel n=1.05, TL=40 mm, 40 mmt, a Diffused mirror ver. 2, the WC1</li> <li>● Aerogel n=1.05, TL=40 mm, 70 mmt, the Diffused mirror2, the WC1</li> <li>● Aerogel n=1.05, TL=40 mm, 50 mmt, the Diffused mirror2, the WC1</li> <li>● Aerogel n=1.05, TL=40 mm, 30 mmt, the Diffused mirror2, the WC1</li> <li>● Aerogel n=1.05, TL=40 mm, 30 mmt, the Diffused mirror2, a WC ver. 3</li> </ul> <p>We successfully optimized the aerogel thickness, the diffused mirror types, and the Winston cone types.</p>			
<p>SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority etc.</p> <p>1) Scheduled time: 24 Hrs (from Jan. 12 9:00 to Jan. 13 21:00)</p> <p>2) Executed machine time: as scheduled with several downtimes</p> <p>3) Beam condition:</p> <ul style="list-style-type: none"> <li>- 250 MeV/c positive beam</li> <li>- MR: 14.9 kW</li> </ul> <p>4) Down time:</p> <ul style="list-style-type: none"> <li>- Area entering to change AC mirrors, aerogel materials, and Winston cones.</li> </ul>			
<p><u>Comments/Requests</u></p> <p>1) Sometimes we observed a sudden change of the e/mu ratio which could be attributed to either the instability of the secondary beam line magnet or the primary beam line vertical position on the T1 target.</p> <p>2) The Q6 reading sometimes became strange. Its fixing will be necessary.</p>			