

J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN#36

		Date(submitted)	NOV.16, 2010
Group	E06 (TREK)	Beam line	K1.1BR
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Experimenters	J. Imazato, A.Toyoda, Y.Igarashi, H.Yamazaki, K.Yoshihara		

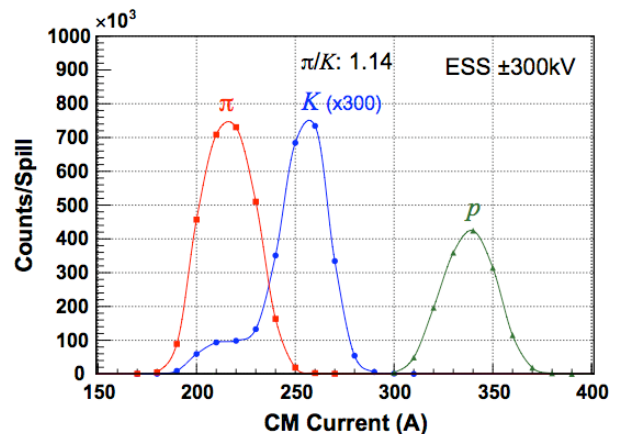
Following Run#35 we continue the beam tuning of the K1.1BR beamline. The main purposes were:

- 1) To find the best Q3/Q4 and Q5/Q6 tuning in order to achieve the highest flux of kaons;
- 2) Improvement of K/pi ratio.

<Results>

1) We succeeded to find the best combination of Q3/Q4-Q5/Q6 settings to obtain the maximum beam transmission through the ESS with vertically parallel beam. The kaon yield increased by a factor 3.5 compared with the last condition in Run#35. The ESS high voltage was briefly raised to ± 300 kV to investigate the K/ π separation. [Conditions: p=800 MeV/c, proton power=3.0-3.6 kW, period=6s, K1.8D1=-329A. ESS= ± 150 , ± 250 and ± 300 kV]

Vertical slits	K+/spill @ 3.6 kW		pi /K ratio	
	Narrow H.S.	Wide H.S.	@250 kV	@300 kV
Narrow	1,253	3,629	1.4	
Δ IFY= \pm 0.5mm				
Δ MS= \pm 0.75mm				
Standard	2,541	$\geq 58,443$	9.8	1.1
Δ IFY= \pm 1.5mm				
Δ MS= \pm 2.0mm				
Wide	3,493	$\geq 80,338$	25.2	
Δ IFY= \pm 2.0mm				
Δ MS= \pm 2.5mm				
Widest	3,811	$\geq 87,653$	26.8	6
Δ IFY= \pm 2.5mm				
Δ MS= \pm 2.5mm				



SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority etc.

1) Executed run time:

Nov.7(Su) 23:00 – Nov.8(Mo) 9:30

Nov.8(Mo) 22:00 – Nov.9(Tu) 9:30

Nov. 9(Tu) 22:00 – Nov.10(We) 9:30

Total 33.5 Hrs

3) Beam condition:

K1.8D1 was -329A all the time. The K1.1BR beam momentum was stable.

Comments/Requests