Construction of WSS beam line for the pn → pΛ experiment

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An experiment to measure the cross section of the pn→ pΛ reaction is under progress[1,2]. For this experiment, a new beam line, which was named WSS, has been designed and built in the west experimental hall at the Research Center for Nuclear Physics (RCNP), Osaka University. The schematic drawing of WSS beam line is shown in Figure 1.
A solenoid magnet called 'Osho' has been moved from KEK to this beam line, which will be used to get a momentum and charge of decay particles from Λ. Its coil is 1.42m in diameter and 1.8m in length, can provide an axial magnetic field of 0.3T with operating current of 2450A and voltage of 188V. We have finished full powering of this magnet. Now, detectors for this experiment,the cylindrical drift chamber and plastic scintilators, are installed in Osho magnet (Figure 2).

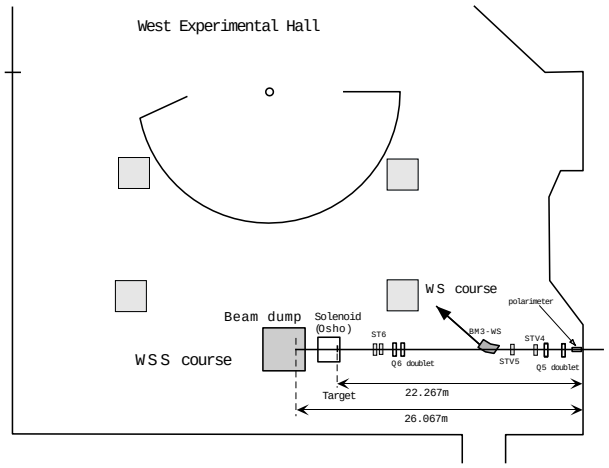

Figure 1: Schematic drawing of WSS beam line.

Figure 2: Photo of the Osho magnet on WSS beam line.

References

[1] T.Kishimoto *et al.*,Nucl. Phys. A663-664, p509-512 (2000)
[2] T. Kishimoto *et al.*, RCNP Ring-Cyclotron proposal E122