

Cyclotron target system at Nihon Medi-Physics

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Nihon Medi-Physics has three cyclotrons (CS-30 x 2, 480 PF x 1), which are fixed energy machines (28 MeV). The third one (480 PF) was just installed in Chiba Facility in May, 1985. Now another cyclotron, type 750 PV (20-70 MeV Proton) is under installation, which will finish in May 1986.

The CS-30 and 480 PF produce commercial ^{67}Ga , $^{81\text{m}}\text{Kr}$, ^{111}In , ^{123}I and ^{201}Tl . 750 PV is to produce $^{123}\text{Te}(p,n)^{123}\text{I}$.

The layout of cyclotron cave and target transfer system is shown on the attachment. Their targets are automatically set and released under handling system and are carried from the cyclotron cave to the cell on transfer system.

The control system and the target system for the 480 PF are computerized and stable production of RI has been established. Same computerized system will be applied for the 750 PV.

The target system for $(p, 5n)^{123}\text{I}$ is now under consideration, and the regular production is scheduled to start from August, 1986. For a while, it will be produced by the batch type system, and some of the beam ducts will be used for R&D of the flow type target system.

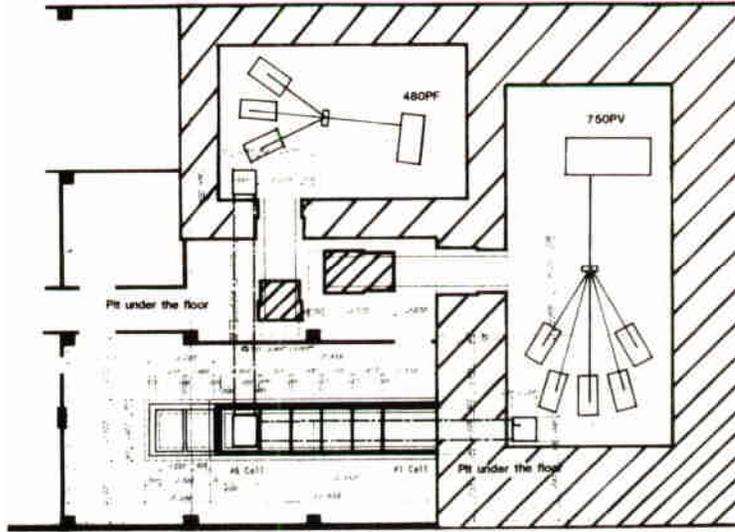


Figure 1

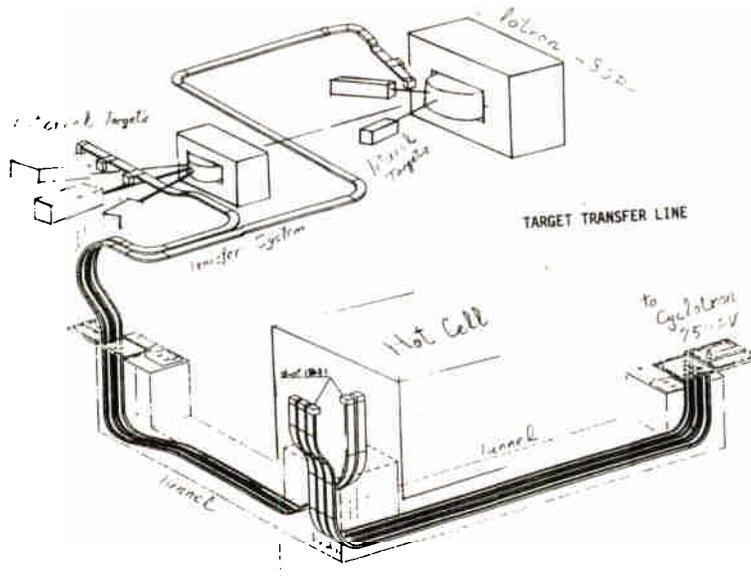


Figure 2