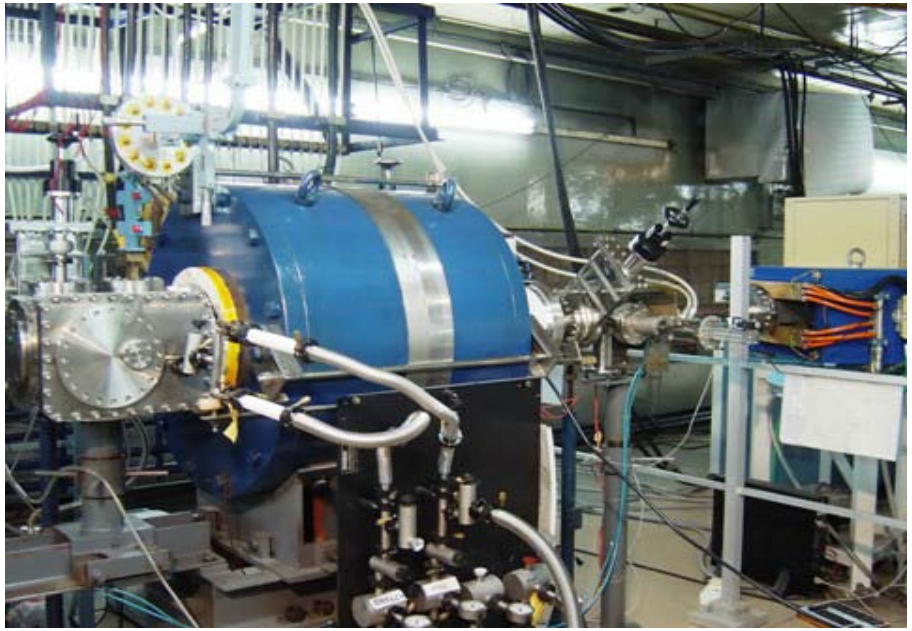
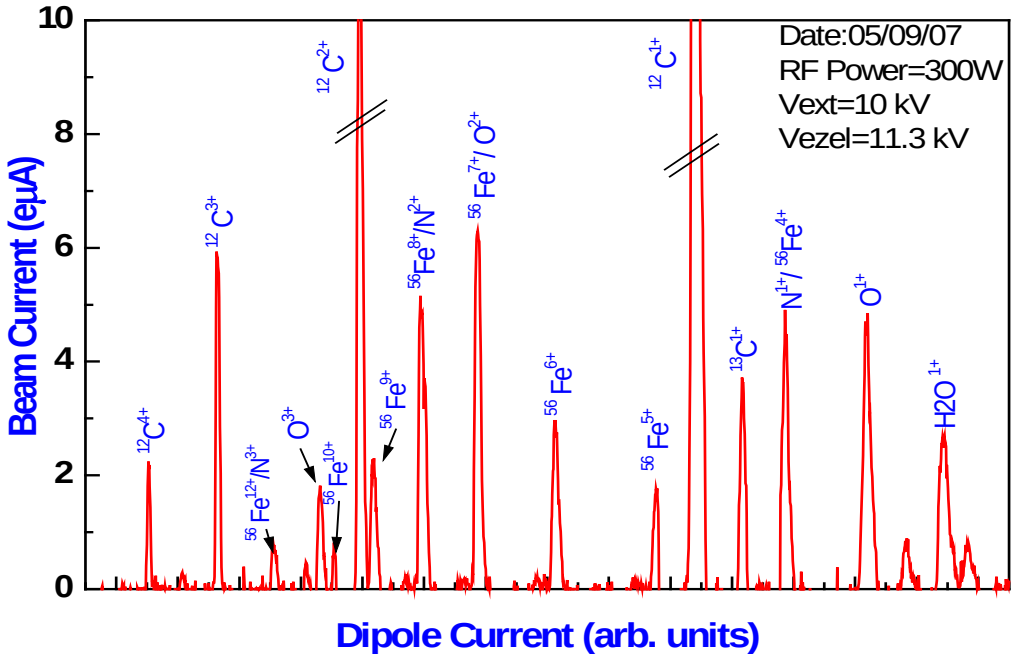
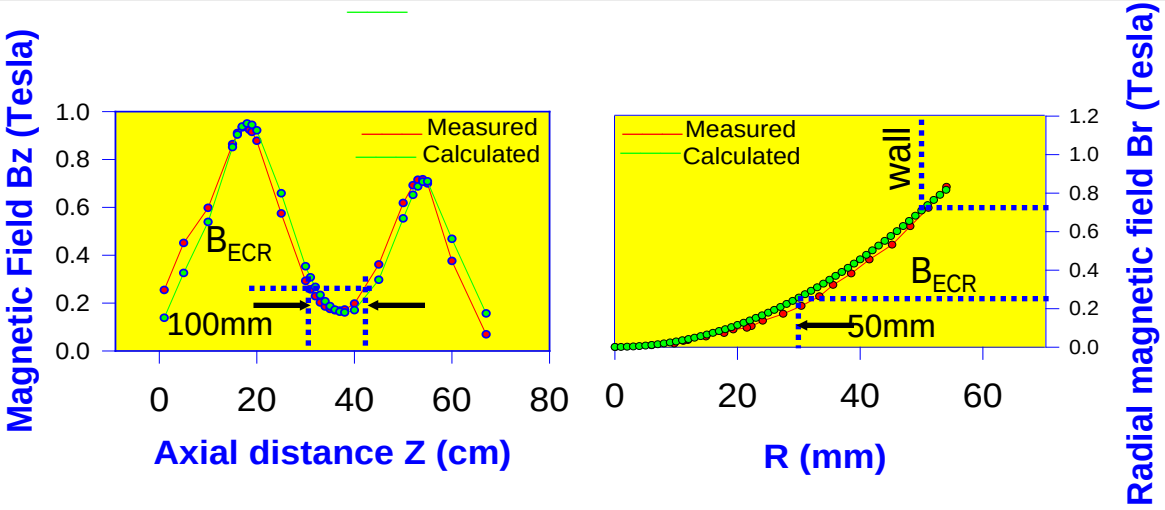
6.4 GHz On-Line ECR ion-source





Typical spectrum from ECR ion source

ECR ion-source design parameters



ECR parameters :	Value :
Frequency	6.4 GHz
RF Power (maximum)	3 kW
B_{ECR}	0.23 Tesla
Axial magnetic field (B_z) (Solenoid)	0.95 Tesla (inj.) ; 0.7 Tesla (ext.)
Radial mag. field at plasma chamber i.d. (B_r)	0.7 Tesla
Mirror ratio	5.9 (inj); 4.4 (ext)
Plasma chamber I.D	100 mm
ECR overall dimensions	0.98 m dia; 1m length
Power (both solenoid coils)	60 kW

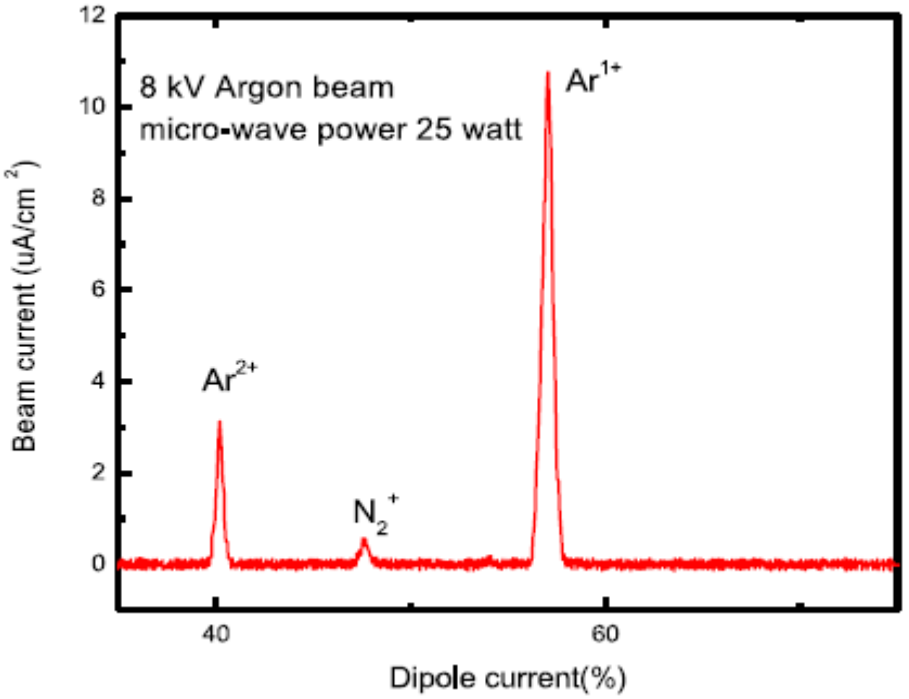
2.4 GHz ECR ion-source

This is a very compact ion source employing only permanent magnets

Pantecnik Make

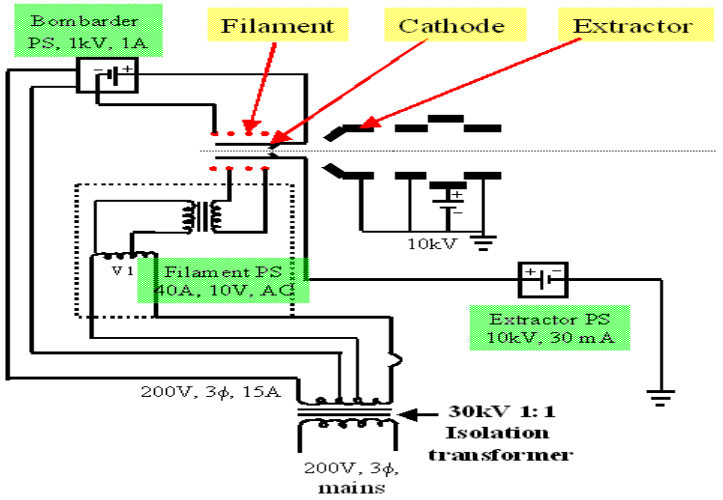
Bmax / Bmin : 0.8 (Inj) / 0.22 (Ext)

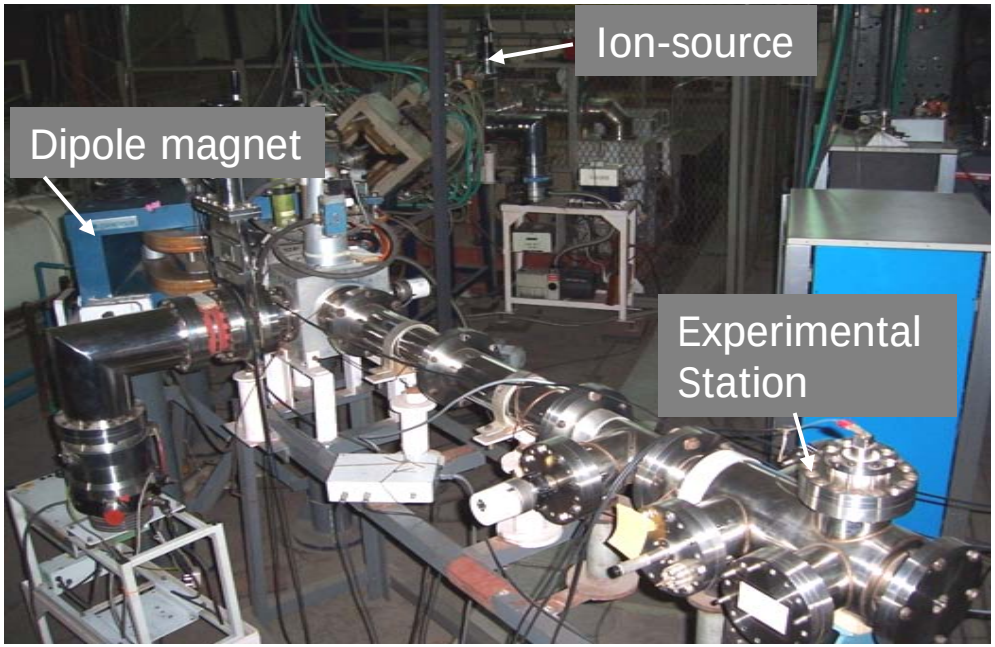
ε(He1+) : 30 π-mm-mrad (Typ. @10 kV)

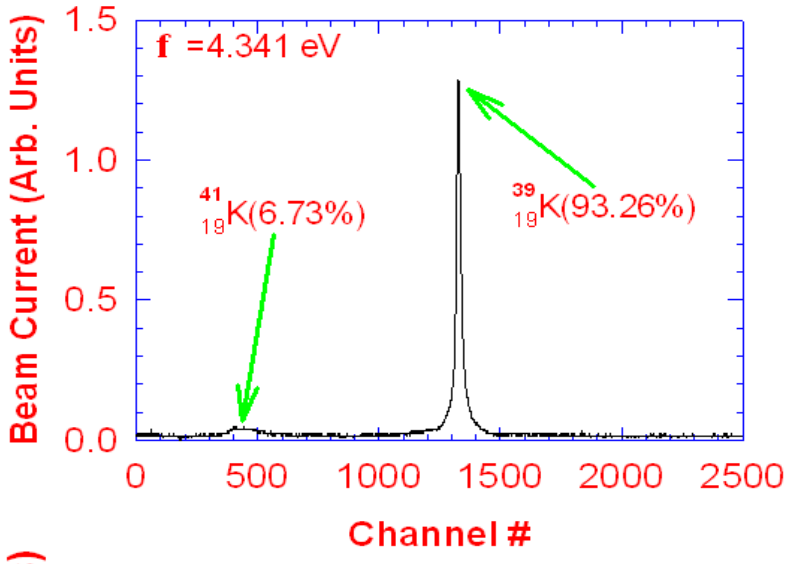


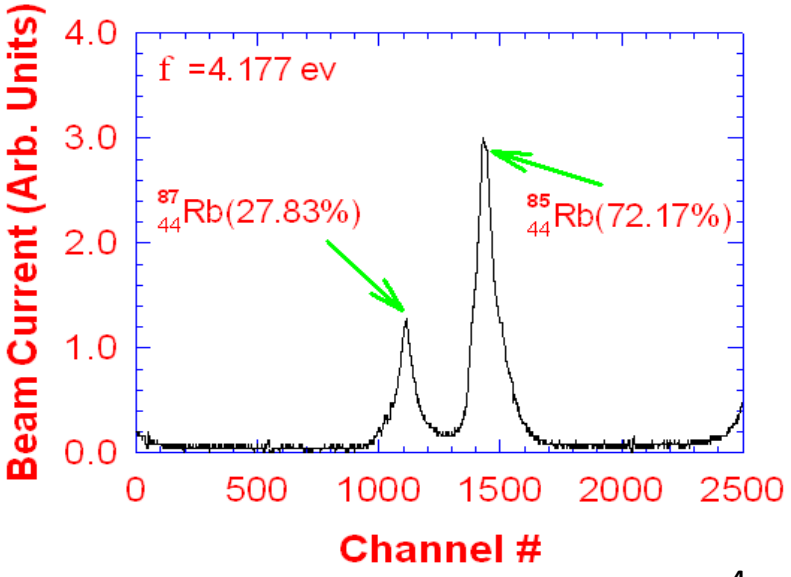
Typical spectrum from ECR ion source

Surface ion-source at ISOL facility

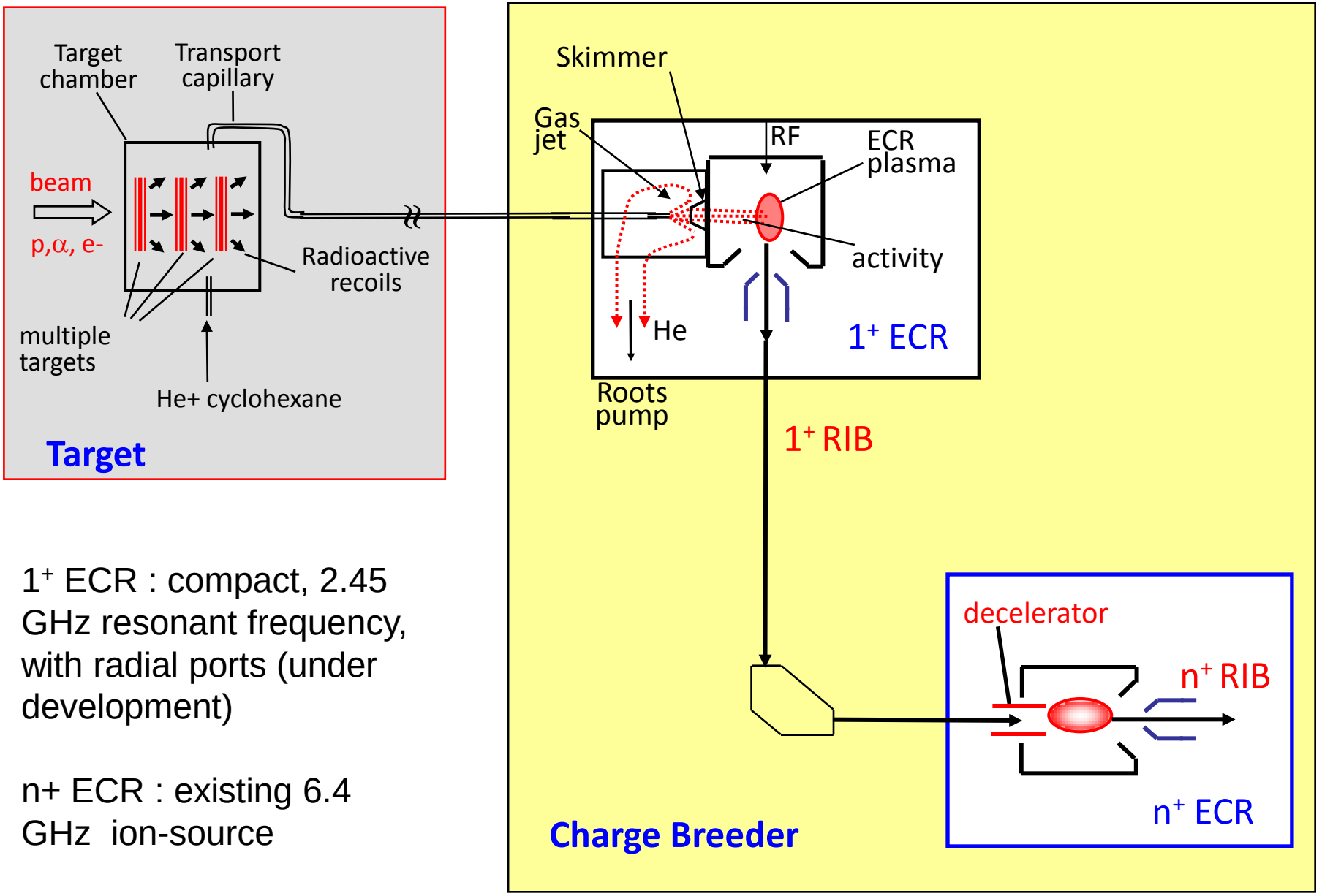








Scheme for on-line production of RIB



1^+ ECR : compact, 2.45 GHz resonant frequency, with radial ports (under development)

n+ ECR : existing 6.4 GHz ion-source

Layout of Charge Breeder