ENTRY NO: C-11
Machine Name: SSC2
Date: 5/31/01 11:02:32 AM
Institution: GANIL
Address BP 5027 14076 CAEN CEDEX 5 FRANCE
In Charge of Cyclotron: E. Baron
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HISTORY
Designed By: in house
Construction Dates: 1976-1982
First Beam Date: nov 82
CHARACTERISTIC BEAMS

ions	/ **energy**(MeV/N)/**curre**nt(pps)/**powe**r(w)		
C12	95	2 10+13	3
U238	24	1 10+10	2

transmision efficiency(source to extract beam)
typical: 90% - **best:** 98%
tranverse emmitance
emmitance definition: 90%
vertical: 5π mm mrad
horizontal: 5π mm mrad
longitudinal: 0.2*4(Δ) E/E)%xdeg RF

USES
basic research: 65% **therapy:** 0%
development: 10% **isotope production:** 0%
other: 5% **maintenance:** 5%
beam tuning: 15% **Total Time:** 5000h/year

TECHNICAL DATA
a)magnet: **type:** separeted sectors
Kb: 380MeV/A **Kf:** 380MeV/A
average field (min/max): 0.95/0.39 T
number of magnet sectors: 4
hill angular width: 52hill angular width
spiral (max): deg
pole parameters
diameter: m
injection radius: 1.2 m
extraction radius: 3 m
hill gap: 0.01m **valley gap:** m
trim coils
-number: 10x2
-current(max): A-turns
harmonic coils
-number: 1xNsectorsx2
-current(max): A-turns
main coils
number: 4x2
total ampere-turns: A-turns
current: A
stored energy: MJ
weight - iron: 1700t coils: 14t
power
main coils (total): 950 kW
trim coils (total max): 140 kW
refrigerator (cryogenic): kW
b)RF
acceleration
frequency range: 7-13.45MHz
harmonic modes: 2
number of dees: 2
number of cavities:
dee angular width: 34degrees
voltage
at injection: 160kV(peak to ground, max)
at extraction: kV(peak to ground, max)
peak: kV(peak to ground, max)
line power(max): 100kW
stability
phase: 0.1 deg
voltage: 0.01%
injection
c)ion source:
external injection: radial
components: 4 mag. Channels
source bias voltage: kV
injection energy: MeV/N
buncher: harmonic 4
injection efficiency: 100%
d)injector: SSC1
e)extraction
1 electrostatic deflector 4 magnetic channels
efficiency
typical: 90%
best: 98%
f)vacuum
pumps: 8 cryopumps and 4 turbopumps
achieved vacuum: 6 10-6Pa
REFERENCES

EXPERIMENTAL FACILITIES
9 experimental rooms 2 of them provided with beam in time sharing
COMMENTS