ENTRY NO: CM-8
Machine Name: C235
Date: 5/31/01 2:25:42 AM
Institution: Sumitomo Heavy Industries, Ltd.
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HISTORY
Designed By:
Construction Dates: 1997
First Beam Date: 1998
CHARACTERISTIC BEAMS

ions	/ **energy**(MeV/N)/**curre**nt(pps)/**powe**r(w)	
p	235	300nA

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

USES
basic research: % **therapy:** %
development: % **isotope production:** %
other: % **maintenance:** %
beam tuning: % **Total Time:** h/year

TECHNICAL DATA
a)magnet: **type:** compact
Kb: MeV/A **Kf:** MeV/A
average field (min/max): 2.2 T
number of magnet sectors: 4
hill angular width: 57hill angular width
spiral (max): 57 deg
pole parameters
diameter: m
injection radius: m
extraction radius: 1.07 m
hill gap: 0.096-0.009m **valley gap:** 0.6m
trim coils
-number: 0x2
-current(max): A-turns
harmonic coils
-number: 1xNsectorsx2
-current(max): A-turns
main coils
number: 1x2
total ampere-turns: 532000 A-turns
current: 800 A
stored energy: MJ
weight - iron: 190t coils: 20t
power
main coils (total): kW
trim coils (total max): kW
refrigerator (cryogenic): kW
b)RF
acceleration
frequency range: 106MHz
harmonic modes: 4
number of dees: 2
number of cavities: 2
dee angular width: 30degrees
voltage
at injection: 60kV(peak to ground, max)
at extraction: 140kV(peak to ground, max)
peak: kV(peak to ground, max)
line power(max): 60kW
stability
phase: deg
voltage: %
injection
c)ion source: Livingston
external injection:
components:
source bias voltage: kV
injection energy: MeV/N
buncher:
injection efficiency: %
d)injector:
e)extraction
Electrostatic deflector Gradient corrector (passive) Permanent quadrupoles
efficiency
typical: 50%
best: %
f)vacuum
pumps: 2 sets of cryogenic pumps
achieved vacuum: 9*10-5Pa
REFERENCES

EXPERIMENTAL FACILITIES

COMMENTS