ENTRY NO: CM-4
Machine Name: 370V
Date: 5/31/01 1:34:20 AM
Institution: Sumitomo Heavy Industries, Ltd.
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HISTORY
Designed By: Sumitomo Heavy Industries, Ltd.
Construction Dates: 1995
First Beam Date: 1996
CHARACTERISTIC BEAMS

ions	/ **energy**(MeV/N)/**curre**nt(pps)/**powe**r(w)	
p	2	5micro-ampere
p	17	50micro-ampere
d	9	40micro-ampere
4He2+	4.5	5micro-ampere
3He2+	8	10micro-ampere

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): 16.6/5.5 T
number of magnet sectors: 4
hill angular width: hill angular width
spiral (max): deg
pole parameters
diameter: m
injection radius: m
extraction radius: 0.37 m
hill gap: 0.07m **valley gap:** 0.12m
trim coils
-number: 5x2
-current(max): A-turns
harmonic coils
-number: 1xNsectorsx2
-current(max): A-turns
main coils
number: 1x2
total ampere-turns: A-turns
current: A
stored energy: MJ
weight - iron: t coils: t
power
main coils (total): kW
trim coils (total max): kW
refrigerator (cryogenic): kW
b)RF
acceleration
frequency range: 17-38MHz
harmonic modes: 1/3
number of dees: 1
number of cavities: 1
dee angular width: 180degrees
voltage
at injection: 32kV(peak to ground, max)
at extraction: 32kV(peak to ground, max)
peak: 32kV(peak to ground, max)
line power(max): kW
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

efficiency
typical: %
best: %
f)vacuum
pumps: one diffusion pump
achieved vacuum: Pa
REFERENCES

EXPERIMENTAL FACILITIES

COMMENTS