

ENTRY NO: CU-18
Machine Name: CYPRIIS-370(Two machines)
Date: 5/29/01 12:28:01 AM
Institution: S.H.I. Examination & Inspection
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HISTORY

Designed By: Sumitomo Heavy Industries, LTD.
Construction Dates: 1st machine:1985, 2nd machine:1997
First Beam Date: the same years

CHARACTERISTIC BEAMS

ions	/ energy(MeV/N)	/current(pps)	/power(w)
p	18MeV	50uA	900W
d	10MeV	10uA	100W
He-3	24MeV	5uA	120W
He-4	17MeV	3uA	51W

transmission efficiency(source to extract beam)

typical: % - **best:** %

tranverse emittance

emittance definition:

vertical: π mm mrad

horizontal: π mm mrad

longitudinal: (Δ) E/E)%xdeg RF

USES

basic research: 0% **therapy:** 0%
development: 10% **isotope production:** 5%
other: 80% **maintenance:** 5%
beam tuning: 0% **Total Time:** 2000h/year

TECHNICAL DATA

a)magnet: type:

Kb: MeV/A **Kf:** MeV/A

average field (min/max): T

number of magnet sectors:

hill angular width: hill angular width

spiral (max): deg

pole parameters

diameter: m

injection radius: m

extraction radius: m

hill gap: m **valley gap:** m

trim coils

-number: x2

-current(max): A-turns

harmonic coils

-number: xNsectorsx2

-current(max): A-turns

main coils

number: x2

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: MHz

harmonic modes:

number of dees:

number of cavities:

dee angular width: degrees

voltage

at injection: kV(peak to ground, max)

at extraction: kV(peak to ground, max)

peak: kV(peak to ground, max)

line power(max): kW

stability

phase: deg

voltage: %

injection

c)ion source:

external injection:

components:

source bias voltage: kV

injection energy: MeV/N

buncher:

injection efficiency: %

d)injector:

e)extraction

efficiency

typical: %

best: %

f)vacuum

pumps:

achieved vacuum: Pa

REFERENCES

EXPERIMENTAL FACILITIES

COMMENTS