

ENTRY NO: C-50
Machine Name: Nuffield 60in Cyclotron
Date: 5/24/01 3:29:26 AM
Institution: The University of Birmingham
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HISTORY

Designed By:
Construction Dates:
First Beam Date:

CHARACTERISTIC BEAMS

ions / energy(MeV/N)/current(pps)/power(w)

transmission efficiency(source to extract beam)

typical: % - best: %

tranverse emittance

emittance definition:

vertical: π mm mrad

horizontal: π mm mrad

longitudinal: $(\Delta) E/E$ %xdeg RF

USES

basic research: %

therapy: %

development: %

isotope production: %

other: %

maintenance: %

beam tuning: %

Total Time: h/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