ENTRY NO. CU6 **Date** June 19, 1992

Name of Machine CGR-MeV 930S

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In Charge: C. PIRART Reported by: C. PIRART

HISTORY

MILESTONE DATES:

Design 1980 Model Tests ...

Construction 1981-1983 First Beam 1983

DESIGN/CONSTRUCTION BY:

in house ... other ...

COST: Accelerator 6 M US$ Facility 12 M US$

FUNDED BY: ...

STATUS

STAFF: Machine

Scientists ... Engineers ...

Technicians 5 Students ...

Research (in house/external)

Scientists ... / ... Engineers ... / ...

Technicians ... / ... Students ... / ...

BUDGET: Machine ... Funded by ...

Research ... Funded by ...

TIME DISTRIBUTION:

Basic Research (in house/external) ... % / ... %

Applied Program (in house/external) 100 % / ... %

Development ... % Maintenance ... %

MAGNET

POLE PARAMETERS:

Diameter 215.6 cm $R_{extract}$ 92.4 cm R_{inject} ... cm

HILL PARAMETERS: Gap (min) 16.6 cm B_{max} 2.15 T

(@ ... AT) Gap (max) 40.5 cm B_{min} 1.15 T

VALLEY PARAMETERS: Gap (min) ... cm B_{max} ... T

(@ ... AT) Gap (max) ... cm B_{min} ... T

AVERAGE FIELD: $< B >_{min}$ ... T $< B >_{max}$ ... T

NUMBER OF SECTORS: compact/separated 4 / ...

sector angle ... deg. spiral (max) 53 deg.

FIELD TRIMMING: Trim Coils 12 pairs

Harmonic Coils centering 4 pairs Ext. 4 pairs

Other ...

CURRENT: Main Coils 1100 Amps Stability 10-5

Trim Coils 300 Amps Stability 10-3

Stored Energy (cryogenic) ... MJ

WEIGHT: Iron 200 T Conductor Cu

ION ENERGY: Bending Limit E/A = 110 q^2/A^2 MeV/u

Focussing Limit E/A = 80 q/A MeV/u

ACCELERATION SYSTEM

FUNDAMENTAL ACCELERATION:

Description: ...

No. of Gaps/turn 4 dE/dn(max) 0.15 MeV/q

Voltage(max) 0.05 MV Harmonic f_{rf}/f_{ion} 1 , II

Freq 10.6-23 MHz Power in(max) 0.14 MW

Stability: Phase 0.1° Voltage < 10-3

OTHER CAVITIES (Flattopping or otherwise):

Description: ...

Region of Influence: R_{min} ... cm R_{max} ... cm

No. of Gaps/turn ... dE/dn(max) ... MeV/q

Voltage(max) ... MV Harmonic f_{rf}/f_{ion} ...

Freq ... MHz Power in(max) ... MW

Stability: Phase ... Voltage ...

VACUUM SYSTEM

OPERATING PRESSURE: 2.10-6

PUMPS: No. and type 2 x OIL DIF. 12000 l/s

...

ION SOURCE(S)

	Type	Intensity (mA)	@	$\epsilon_n = \beta\gamma\epsilon$ (πmm mrad)	Ion Species
(a)	LIV-JONES	...		...	p,d,α,...
(b)	...	...		...	...
(c)	...	...		...	...
(d)	...	...		...	...

INJECTION SYSTEM

... Efficiency ... %

EXTRACTION SYSTEM

DC electrost. + act. magn. channel Efficiency 60 %

CHARACTERISTIC BEAMS

	Accelerated Ions	E/A (MeV/u)	Current(part μA) Internal	External
(a)	p	80	700	50
(b)	...	...	...	...
(c)	...	...	...	...
(d)	...	...	...	...

	Secondary Particles	E (MeV)	part/sec
(a)	...	...	...
(b)	...	...	...
(c)	...	...	...

EXTRACTED BEAM PROPERTIES:

For ... μA of ... MeV/u ... ions

$\Delta E/E$ ... % $\Delta\phi$ ... °rf

$\epsilon_n = \beta\gamma\epsilon$ x ... πmm mrad z ... πmm mrad

FACILITIES FOR RESEARCH

SHIELDED AREA: Fixed ... m^2 Moveable ... m^2

Target Stations: 4 No. Served At Same Time: 1

MAGNETIC SPECTROMETERS: ...

OTHER FACILITIES: ...

...

...

...

REFERENCES/NOTES

(a) ...

(b) ...

PLAN VIEW OF FACILITY, COMMENTS