ENTRY NO. C74 Date July 1,1992

Name of Machine U-115T

Institution Institute of Nuclear Physics

Address 702132 Tashkent Uzbekistan

Tel ..... Telex ..... Fax ..... EMAIL .....

In Charge: A. Rylov Reported by: A. Glazov

HISTORY

MILESTONE DATES:

Design 1991 Model Tests .....

Construction 1991-92 First Beam .....

DESIGN/CONSTRUCTION BY:

in house ..... other JINR Dubna.....

COST: Accelerator ..... Facility .....

FUNDED BY: .....

STATUS

STAFF: Machine

Scientists ..... Engineers .....

Technicians ..... 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) ..... % / ..... %

Development ..... % Maintenance ..... %

MAGNET

POLE PARAMETERS:

Diameter 115 cm $R_{extract}$ 48 cm R_{inject} ..... cm

HILL PARAMETERS: Gap (min) 8.2 cm B_{max} 1.69 T

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

VALLEY PARAMETERS: Gap (min) 16.2 cm B_{max} 1.02 T

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

AVERAGE FIELD: $< B >_{min}$ 1.32 T $< B >_{max}$ 1.35 T

NUMBER OF SECTORS: compact/separated 4/

sector angle 40-52 deg. spiral (max) 56 deg.

FIELD TRIMMING: Trim Coils .....

Harmonic Coils 2 x 4

Other .....

CURRENT: Main Coils 560 Amps Stability 10^{-4}

Trim Coils 10 Amps Stability 10^{-4}

Stored Energy (cryogenic) ..... MJ

WEIGHT: Iron 50 T Conductor Cu 0.7 T

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

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

ACCELERATION SYSTEM

FUNDAMENTAL ACCELERATION:

Description: Dee,resonant line

No. of Gaps/turn 2 dE/dn(max) 0.1 MeV/q

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

Freq 20.2 MHz Power in(max) 0.025 MW

Stability: Phase ..... Voltage .....

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: 10^{-6}

PUMPS: No. and type 2 Oil diffusion

.....

ION SOURCE(S)

	Type	Intensity (mA)	@	$\epsilon_n = \beta\gamma\epsilon$ (πmm mrad)	Ion Species
(a)	Internal PIG	.....		.....	Protons
(b)	.....	.....		.....	.....
(c)	.....	.....		.....	.....
(d)	.....	.....		.....	.....

INJECTION SYSTEM

..... Efficiency ..... %

EXTRACTION SYSTEM

..... Efficiency ..... %

CHARACTERISTIC BEAMS

	Accelerated Ions	E/A (MeV/u)	Current(part μA) Internal	External
(a)	P	20	.....	.....
(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: ..... No. Served At Same Time: .....

MAGNETIC SPECTROMETERS: .....

OTHER FACILITIES: .....

.....

.....

.....

REFERENCES/NOTES

(a) .....

(b) .....

PLAN VIEW OF FACILITY, COMMENTS