

ENTRY NO. CU11 Date 1989
 Cyclotron Model TCC CV-28
 Institution Instituto de Engenharia Nuclear/CNEN
 Address Caixa Postal 2186, Rio de Janeiro, Brazil
 Tel (021) 280 3113 Telex 02121112
 Fax EMAIL
 In Charge: A.G. DaSilva Reported by: Jose A.D. Furlanetto

HISTORY

MILESTONE DATES:

Installation First Beam Dec. 1974
 DESIGN/CONSTRUCTION BY: TCC
 COST: Accelerator 0.5M US\$ Facility 1.2M US\$
 FUNDED BY: CNEN-Brazil, FINEP-Brazil

STATUS

STAFF: Operators Technicians 6
 BUDGET: Machine 80K US\$ Funded by CNEN-Brazil
 TIME DISTRIBUTION: (e.g. basic research, isotope production, maintenance, etc.)
 (a) Basic Nuclear Physics 40 %
 (b) Isotope Production 40 %
 (c) %
 (d) %
 (e) %

CHARACTERISTIC BEAMS

Accelerated Ions	E/A (MeV/u)	Current (part μ A)	
		Internal	External
(a) p	24	100	70
(b) d, ^3He , α	7	140	100

1991 μ A-hours on target:

FACILITIES

SHIELDED AREA: Fixed 50 m² Moveable 250 m²
 Target Stations: 5 No. Served At Same Time: 1
 OTHER FACILITIES: 2 scattering chambers, He jet transport system, neutron production and spect. station, radio-isotope production and separation cells, ion implantation station

REFERENCES/NOTES

(a) A.G. da Silva et al, NIM A264 (1988) 381
 (b)

PLAN VIEW OF FACILITY, COMMENTS

ENTRY NO. CU12 Date January 5, 1996
 Cyclotron Model TCC CV 28 WITH MODIFIED INTERNAL TARGET
 Institution Inst de Pesquisas Energ.e Nucleares - CNEN/SP
 Address P.O. 11049-CEP 05422-970-SAO PAULO-SP BRAZIL
 Tel 55-011-816-9275 Telex
 Fax 55-011-816-9186 E-MAIL WDELIMA@NET.IPEN.BR
 In Charge: C. RODRIGUES Reported by: Wanderley de Lima

HISTORY

MILESTONE DATES:

Installation 04/81 First Beam 05/1982
 DESIGN/CONSTRUCTION BY: The Cyclotron Corp. - USA
 COST: Accelerator US\$ 3,000,000 Facility 4,000,000
 FUNDED BY: Brazilian Government

STATUS

STAFF: Operators 3 Technicians 4
 BUDGET: Machine US\$ 100,000 Funded by IPEN-CNEN/SP
 TIME DISTRIBUTION: (e.g. basic research, isotope production, maintenance, etc.)
 (a) Isotope Production 70 %
 (b) Basic Research 10 %
 (c) Maintenance 20 %
 (d) %
 (e) %

CHARACTERISTIC BEAMS

Accelerated Ions	E/A (MeV/u)	Current (part μ A)	
		Internal	External
(a) PROTONS	24	80	30
(b)			

1994 μ A-hours on target: 20,000

FACILITIES

SHIELDED AREA: Fixed 400 m² Moveable 777 m²
 Target Stations: 2 No. Served At Same Time: 1
 OTHER FACILITIES: Mechanic and electronic shop - hot cell for target receiving

REFERENCES/NOTES

(a) Beams of $^2\text{H}^+$, $^4\text{He}^{++}$ and $^3\text{He}^{++}$ is possible (not in use)
 (b)

PLAN VIEW OF FACILITY, COMMENTS

There are 3 irradiation rooms but the central one will be modified to receive a new production Cyclotron (Tr-30 or cyclone-30) now in an international bid process.