

Entry: CU7 Date: 28 May 1998
 Machine Name: isochronous cyclotron
 Cyclotron Model: CGR-MeV 520
 Institution: Dpt. Analytical Chemistry, Inst. Nuclear Sciences,
 University Gent
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 In Charge: Prof. Dr. Richard DAMS (Dpt chairman)
 Dr. Karel Strijckmans

HISTORY

Installation: 1976-82 First Beam: 1977
 Design/Construction by: CGR-MeV France
 Funded by: National Fund for Scientific Research (Belgium)
 NFWO and University Gent (RUG)

USES

Positron Emission Tomography (PET) 70 %
 Charged Particle Activation Analysis (CPAA) 5 %
 Particle Induced X-ray emission (PIXE) analysis 20 %
 Thin Layer Activation (TLA) for wear and corrosion studies 3 %
 Production of calibration sources and tracers with high specific activity 2 %
 Total time: 1000 h/year

CHARACTERISTIC BEAMS

Ions/energy/current:
 protons: 2.5-24 MeV 25 μ A
 deuterons: 3 - 14.5 MeV 25 μ A
 helium-3: 6 - 32 MeV 5 μ A
 helium-4: 10 - 29 MeV 5 μ A
 neutrons: d(14.5)+Be $2 \times 10^{12} \text{ s}^{-1} \text{ cm}^{-2}$ 0.18 Gy min^{-1}

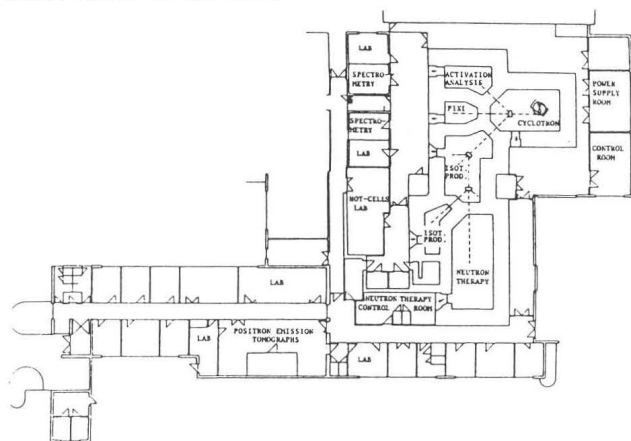
EXPERIMENTAL FACILITIES

PET-scanner Siemens 951/31
 Radiochemistry unit with 6 hot-cells
 Spectrometry

REFERENCES

<http://allserv.rug.ac.be/~jddonder/AnalChem/incmain.htm>
 Dpt web-site, list of publications, theses, biennial report 1995-96,
<http://www.admin.rug.ac.be/Onderzoeksbeleid/techno/broen28.htm>
 l#Heading116 Charged Particle Activation web-site
<http://www.admin.rug.ac.be/Onderzoeksbeleid/techno/genen6.html>
 Positron Emission Tomography web-site

PLAN VIEW OF FACILITY



ENTRY NO. CU8 Date 1989
 Cyclotron Model CGR-MeV 520
 Institution Université de Liège
 Address Centre de Recherches du Cyclotron
 Tel 32 41 56 36 87 Telex
 Fax 32 41 56 29 46 EMAIL
 In Charge: D. LaMotte Reported by: D. LaMotte

HISTORY

MILESTONE DATES:
 Installation First Beam 1975
 DESIGN/CONSTRUCTION BY: CGR-MeV
 COST: Accelerator Facility
 FUNDED BY:

STATUS

STAFF: Operators 5 Technicians 5
 BUDGET: Machine Funded by
 TIME DISTRIBUTION: (e.g. basic research, isotope production, maintenance, etc.)
 (a) Solid State Physics 30 %
 (b) Bio-Medical Application 40 %
 (c) Isotope Production 30 %
 (d) %
 (e) %

CHARACTERISTIC BEAMS

Accelerated Ions	E/A (MeV/u)	Current (part μ A)	
		Internal	External
(a) p	2.5-24	300	100
(b) d	2-7	500	100

He³, He⁴
 1991 μ A-hours on target: -

FACILITIES

SHIELDED AREA: Fixed 700 m² Moveable m²
 Target Stations: 7 No. Served At Same Time: 1
 OTHER FACILITIES: radiochemistry, (automated production of labelled compounds), medical unit (positron scanners), radio pharmacy, biological laboratories

REFERENCES/NOTES

(a)
 (b)

PLAN VIEW OF FACILITY, COMMENTS