

ENTRY NO. CU7 Date August, 1995
 Cyclotron Model CGR-MeV 520
 Institution Dpt. Anal. Chem.-Inst. Nucl. Sc.-Universiteit Gent
 Address Proeftuinstraat 86, B-9000 Gent, Belgium
 Tel +32 9 264 66 16 Telex Karel.Striickmans
 Fax +32 9 264 66 99 E-MAIL @rug.ac.be
 In Charge: Dr.K.Striickmans Reported by:Dr.K.Striickmans
 Prof.Dr.R.Dams (Dpt. chairman)

HISTORY
MILESTONE DATES:
 Installation 1976 First Beam 1977
DESIGN/CONSTRUCTION BY: CGR-MeV
COST: Accelerator 5,000,000 XEU Facility 5,000,000 XEU
FUNDED BY: NFWO Nat. Fund for Scientific Research
 (Belgium) RUG Universiteit Gent

STATUS
STAFF: Operators 1 full-time Technicians 2 part-time
BUDGET: Machine 50,000 XEU/y Funded by NFWO / RUG / UZ
TIME DISTRIBUTION: (e.g. basic research, isotope production, maintenance, etc.)
 (a) isotope production for PET 70 %
 (b) proton induced X-ray emission (PIXE) anal. 20 %
 (c) charged particle and neutron activation anal. 5 %
 (d) thin layer activation 5 %
 (e) neutron therapy <1 %

CHARACTERISTIC BEAMS

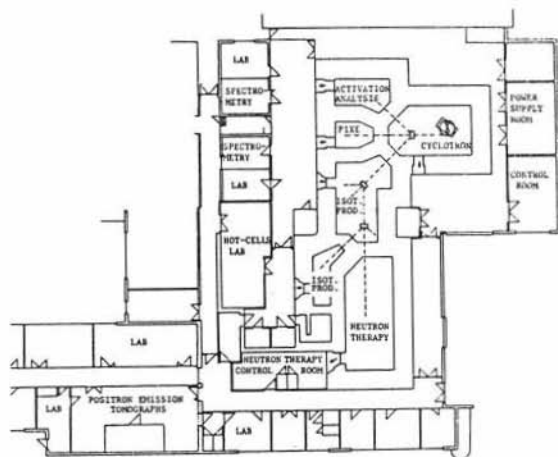
Accelerated Ions	E/A (MeV/u)	Current (part μ A)	
		Internal	External
(a) p	2.5 - 24		100
(b) $^3\text{He}^d$	1.5 - 7.3		100
$^4\text{He}^d$	2.5 - 10.7		60
$^4\text{He}^d$	2.5 - 7.3		60

1994 μ A-hours on target: $\sim 10^4$

FACILITIES
 SHIELDED AREA: Fixed: 200 m² Moveable m²
 Target Stations: 7 No. Served At Same Time: 1
 OTHER FACILITIES: 2 positron emission tomographs, 6 hot-cells, radiochemistry labs, 2 spectrometry labs, mechanical and electronic workshop

REFERENCES/NOTES
 (a) A biennial report describes the current research
 (b) activities of the Dpt. (cyclotron applications a.o.)

PLAN VIEW OF FACILITY, COMMENTS



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

1991 μ A-hours on target: $\sim 10^4$

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)
 (c)
 (d)
 (e)
 (f)
 (g)
 (h)
 (i)
 (j)
 (k)
 (l)
 (m)
 (n)
 (o)
 (p)
 (q)
 (r)
 (s)
 (t)
 (u)
 (v)
 (w)
 (x)
 (y)
 (z)
 (aa)
 (ab)
 (ac)
 (ad)
 (ae)
 (af)
 (ag)
 (ah)
 (ai)
 (aj)
 (ak)
 (al)
 (am)
 (an)
 (ao)
 (ap)
 (aq)
 (ar)
 (as)
 (at)
 (au)
 (av)
 (aw)
 (ax)
 (ay)
 (az)
 (ba)
 (bb)
 (bc)
 (bd)
 (be)
 (bf)
 (bg)
 (bh)
 (bi)
 (bj)
 (bk)
 (bl)
 (bm)
 (bn)
 (bo)
 (bp)
 (bq)
 (br)
 (bs)
 (bt)
 (bu)
 (bv)
 (bv)
 (bw)
 (bx)
 (by)
 (bz)
 (ca)
 (cb)
 (cc)
 (cd)
 (ce)
 (cf)
 (cf)
 (cg)
 (ch)
 (ci)
 (cj)
 (ck)
 (cl)
 (cm)
 (cn)
 (co)
 (cp)
 (cq)
 (cr)
 (cs)
 (ct)
 (cu)
 (cv)
 (cv)
 (cw)
 (cx)
 (cy)
 (cz)
 (da)
 (db)
 (db)
 (dc)
 (dd)
 (de)
 (de)
 (df)
 (dg)
 (dh)
 (di)
 (dj)
 (dk)
 (dl)
 (dm)
 (dn)
 (do)
 (dp)
 (dq)
 (dr)
 (ds)
 (dt)
 (du)
 (dv)
 (dv)
 (dw)
 (dx)
 (dy)
 (dz)
 (ea)
 (eb)
 (eb)
 (ec)
 (ed)
 (ed)
 (ee)
 (ef)
 (ef)
 (eg)
 (eh)
 (ei)
 (ej)
 (ek)
 (el)
 (em)
 (en)
 (eo)
 (ep)
 (eq)
 (er)
 (es)
 (et)
 (eu)
 (ev)
 (ev)
 (ew)
 (ex)
 (ey)
 (ez)
 (fa)
 (fb)
 (fb)
 (fc)
 (fd)
 (fd)
 (fe)
 (ff)
 (ff)
 (fg)
 (fh)
 (fi)
 (fj)
 (fk)
 (fl)
 (fm)
 (fn)
 (fo)
 (fp)
 (fq)
 (fr)
 (fs)
 (ft)
 (fu)
 (fv)
 (fv)
 (fw)
 (fx)
 (fy)
 (fz)
 (ga)
 (gb)
 (gb)
 (gc)
 (gd)
 (gd)
 (ge)
 (gf)
 (gf)
 (gg)
 (gh)
 (gi)
 (gj)
 (gk)
 (gl)
 (gm)
 (gn)
 (go)
 (gp)
 (gq)
 (gr)
 (gs)
 (gt)
 (gu)
 (gv)
 (gv)
 (gw)
 (gx)
 (gy)
 (gz)
 (ha)
 (hb)
 (hb)
 (hc)
 (hd)
 (hd)
 (he)
 (hf)
 (hf)
 (hg)
 (hh)
 (hi)
 (hj)
 (hk)
 (hl)
 (hm)
 (hn)
 (ho)
 (hp)
 (hq)
 (hr)
 (hs)
 (ht)
 (hu)
 (hv)
 (hv)
 (hw)
 (hx)
 (hy)
 (hz)
 (ia)
 (ib)
 (ib)
 (ic)
 (id)
 (id)
 (ie)
 (if)
 (if)
 (ig)
 (ih)
 (ii)
 (ij)
 (ik)
 (il)
 (im)
 (in)
 (io)
 (ip)
 (iq)
 (ir)
 (is)
 (it)
 (iu)
 (iv)
 (iv)
 (iw)
 (ix)
 (iy)
 (iz)
 (ja)
 (jb)
 (jb)
 (jc)
 (jd)
 (jd)
 (je)
 (jf)
 (jf)
 (jg)
 (jh)
 (ji)
 (jj)
 (jk)
 (jl)
 (jm)
 (jn)
 (jo)
 (jp)
 (jq)
 (jr)
 (js)
 (jt)
 (ju)
 (jv)
 (jv)
 (jw)
 (jx)
 (jy)
 (jz)
 (ka)
 (kb)
 (kb)
 (kc)
 (kd)
 (kd)
 (ke)
 (kf)
 (kf)
 (kg)
 (kh)
 (ki)
 (kj)
 (kk)
 (kl)
 (km)
 (kn)
 (ko)
 (kp)
 (kq)
 (kr)
 (ks)
 (kt)
 (ku)
 (kv)
 (kv)
 (kw)
 (kx)
 (ky)
 (kz)
 (la)
 (lb)
 (lb)
 (lc)
 (ld)
 (ld)
 (le)
 (lf)
 (lf)
 (lg)
 (lh)
 (li)
 (lj)
 (lk)
 (ll)
 (lm)
 (ln)
 (lo)
 (lp)
 (lq)
 (lr)
 (ls)
 (lt)
 (lu)
 (lv)
 (lv)
 (lw)
 (lx)
 (ly)
 (lz)
 (ma)
 (mb)
 (mb)
 (mc)
 (md)
 (md)
 (me)
 (mf)
 (mf)
 (mg)
 (mh)
 (mi)
 (mj)
 (mk)
 (ml)
 (mm)
 (mn)
 (mo)
 (mp)
 (mq)
 (mr)
 (ms)
 (mt)
 (mu)
 (mv)
 (mv)
 (mw)
 (mx)
 (my)
 (mz)
 (na)
 (nb)
 (nb)
 (nc)
 (nd)
 (nd)
 (ne)
 (nf)
 (nf)
 (ng)
 (nh)
 (ni)
 (nj)
 (nk)
 (nl)
 (nm)
 (nn)
 (no)
 (np)
 (nq)
 (nr)
 (ns)
 (nt)
 (nu)
 (nv)
 (nv)
 (nw)
 (nx)
 (ny)
 (nz)
 (oa)
 (ob)
 (ob)
 (oc)
 (od)
 (od)
 (oe)
 (of)
 (of)
 (og)
 (oh)
 (oi)
 (oj)
 (ok)
 (ol)
 (om)
 (on)
 (oo)
 (op)
 (oq)
 (or)
 (os)
 (ot)
 (ou)
 (ov)
 (ov)
 (ow)
 (ox)
 (oy)
 (oz)
 (pa)
 (pb)
 (pb)
 (pc)
 (pd)
 (pd)
 (pe)
 (pf)
 (pf)
 (pg)
 (ph)
 (pi)
 (pj)
 (pk)
 (pl)
 (pm)
 (pn)
 (po)
 (pp)
 (pq)
 (pr)
 (ps)
 (pt)
 (pu)
 (pv)
 (pv)
 (pw)
 (px)
 (py)
 (pz)
 (qa)
 (qb)
 (qb)
 (qc)
 (qd)
 (qd)
 (qe)
 (qf)
 (qf)
 (qg)
 (qh)
 (qi)
 (qj)
 (qk)
 (ql)
 (qm)
 (qn)
 (qo)
 (qp)
 (qq)
 (qr)
 (qs)
 (qt)
 (qu)
 (qv)
 (qv)
 (qw)
 (qx)
 (qy)
 (qz)
 (ra)
 (rb)
 (rb)
 (rc)
 (rd)
 (rd)
 (re)
 (rf)
 (rf)
 (rg)
 (rh)
 (ri)
 (rj)
 (rk)
 (rl)
 (rm)
 (rn)
 (ro)
 (rp)
 (rq)
 (rr)
 (rs)
 (rt)
 (ru)
 (rv)
 (rv)
 (rw)
 (rx)
 (ry)
 (rz)
 (sa)
 (sb)
 (sb)
 (sc)
 (sd)
 (sd)
 (se)
 (sf)
 (sf)
 (sg)
 (sh)
 (si)
 (sj)
 (sk)
 (sl)
 (sm)
 (sn)
 (so)
 (sp)
 (sq)
 (sr)
 (ss)
 (st)
 (su)
 (sv)
 (sv)
 (sw)
 (sx)
 (sy)
 (sz)
 (ta)
 (tb)
 (tb)
 (tc)
 (td)
 (td)
 (te)
 (tf)
 (tf)
 (tg)
 (th)
 (ti)
 (tj)
 (tk)
 (tl)
 (tm)
 (tn)
 (to)
 (tp)
 (tq)
 (tr)
 (ts)
 (tt)
 (tu)
 (tv)
 (tv)
 (tw)
 (tx)
 (ty)
 (tz)
 (ua)
 (ub)
 (ub)
 (uc)
 (ud)
 (ud)
 (ue)
 (uf)
 (uf)
 (ug)
 (uh)
 (ui)
 (uj)
 (uk)
 (ul)
 (um)
 (un)
 (uo)
 (up)
 (uq)
 (ur)
 (us)
 (ut)
 (uu)
 (uv)
 (uv)
 (uw)
 (ux)
 (uy)
 (uz)
 (va)
 (vb)
 (vb)
 (vc)
 (vd)
 (vd)
 (ve)
 (vf)
 (vf)
 (vg)
 (vh)
 (vi)
 (vj)
 (vk)
 (vl)
 (vm)
 (vn)
 (vo)
 (vp)
 (vq)
 (vr)
 (vs)
 (vt)
 (vu)
 (vv)
 (vv)
 (vw)
 (vx)
 (vy)
 (vz)
 (wa)
 (wb)
 (wb)
 (wc)
 (wd)
 (wd)
 (we)
 (wf)
 (wf)
 (wg)
 (wh)
 (wi)
 (wj)
 (wk)
 (wl)
 (wm)
 (wn)
 (wo)
 (wp)
 (wq)
 (wr)
 (ws)
 (wt)
 (wu)
 (wv)
 (wv)
 (ww)
 (wx)
 (wy)
 (wz)
 (xa)
 (xb)
 (xb)
 (xc)
 (xd)
 (xd)
 (xe)
 (xf)
 (xf)
 (xg)
 (xh)
 (xi)
 (xj)
 (xk)
 (xl)
 (xm)
 (xn)
 (xo)
 (xp)
 (xq)
 (xr)
 (xs)
 (xt)
 (xu)
 (xv)
 (xv)
 (xw)
 (xx)
 (xy)
 (xz)
 (ya)
 (yb)
 (yb)
 (yc)
 (yd)
 (yd)
 (ye)
 (yf)
 (yf)
 (yg)
 (yh)
 (yi)
 (yj)
 (yk)
 (yl)
 (ym)
 (yn)
 (yo)
 (yp)
 (yq)
 (yr)
 (ys)
 (yt)
 (yu)
 (yv)
 (yv)
 (yw)
 (yx)
 (yy)
 (yz)
 (za)
 (zb)
 (zb)
 (zc)
 (zd)
 (zd)
 (ze)
 (zf)
 (zf)
 (zg)
 (zh)
 (zi)
 (zj)
 (zk)
 (zl)
 (zm)
 (zn)
 (zo)
 (zp)
 (zq)
 (zr)
 (zs)
 (zt)
 (zu)
 (zv)
 (zv)
 (zw)
 (zx)
 (zy)
 (zz)

PLAN VIEW OF FACILITY, COMMENTS