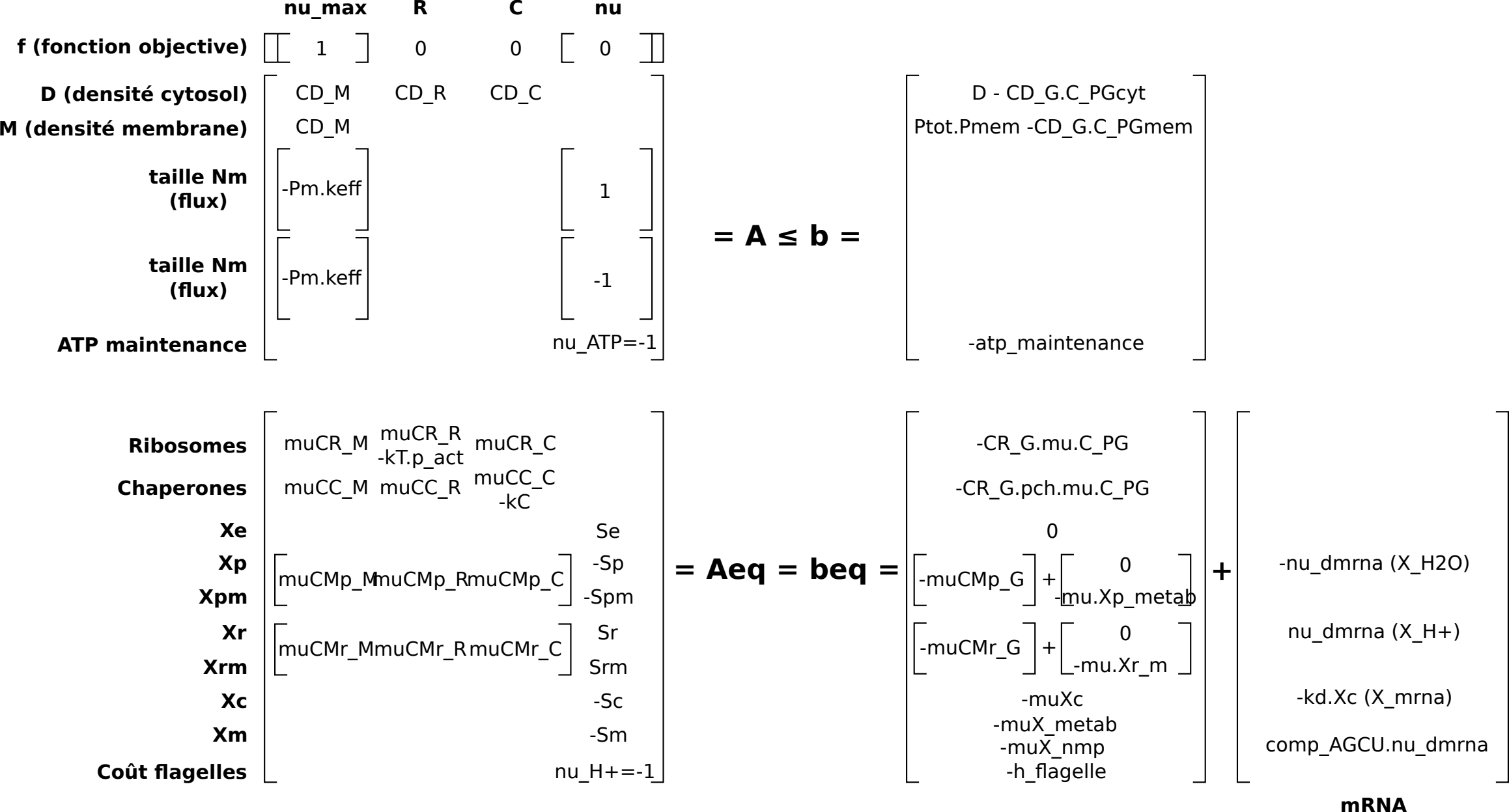
nu_max
R
C
nu
f (fonction objective)
1
0
0
0
D (densité cytosol)
M (densité membrane)
taille Nm (flux)
taille Nm (flux)
ATP maintenance
CD_M
CD_R
CD_C
CD_M
-Pm.keff
1
-Pm.keff
-1
nu_ATP=-1
= A ≤ b =
D - CD_G.C_PGcyt
Ptot.Pmem -CD_G.C_PGmem
-atp_maintenance
Ribosomes
Chaperones
Xe
Xp
Xpm
Xr
Xrm
Xc
Xm
Coût flagelles
muCR_M
muCR_R -kT.p_act
muCR_C
muCC_M
muCC_R
muCC_C -kC
Se
-Sp
-Spm
muCMp_M
muCMp_R
muCMp_C
Sr
Srm
muCMr_M
muCMr_R
muCMr_C
-Sc
-Sm
nu_H+=-1
= Aeq = beq =
-CR_G.mu.C_PG
-CR_G.pch.mu.C_PG
0
-muCMp_G
0
-mu.Xp_metab
-muCMr_G
0
-mu.Xr_m
-muXc
-muX_metab
-muX_nmp
-h_flagelle
+
-nu_dmrna (X_H2O)
nu_dmrna (X_H+)
-kd.Xc (X_mrna)
comp_AGCU.nu_dmrna
mRNA