F1 ((((X\*0.0334)-0.5\*252/80)\*3\*sites)/((X\*0.0334)+21))-1

Vc = [(C - Γ\*)Vcmax/(C + Kc(1 + O/Ko)] - Rd

X = Cc in ubar

Γ\* = 0.5O/Sc/o

Kc(1 + O/Ko = Kc (air)

252 uM = chloroplastic O2 = 20.6 % O2 in water

0.0334 M.bar-1 solubility of CO2 in water



F2 ((((X\*0.0334)-0.5\*252/80)\*Jmax)/(4\*((X\*0.0334)+252/80)))-1

Vj = [(C - Γ\*)J/(4C + 8Γ\*)] - Rd

(((X-48.62)\*3.0\*22.55)/(X+629))-1

(((X-48.62)\*138)/(4\*(X+97.24))-1





