
Scheme-2 Reactor-2

Part-2, Case-5

*tend = 240 sec
k1 = 0.1, k2 = 0.01*

NBt/NAt = 1.22063

*Exponent a = 1
Exponent b = 1
Exponent c = 1.5
Exponent d = 0.5*

*WA = 200
WB = 61.0317
NBt = 3.25503
Vt = 2.13052
Tot.Solv. = 2
SolA/(SolR+SolA) = 0.75*

*CA0 = 1.25165
CB0 = 1.52781*

*Total input = 261.032 kg
Total output = 261.032 kg*

Chemical Balance Error = 0.00047972 kg (% 1.83779e-06)

*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)
Error tolerance: 0.1%*

Final Concentrations with Step Size limited to 0.001

*CA (final) = 0.0125091
CB (final) = 0.0635012
CR (final) = 1.01398
CS (final) = 0.225166*

*CA @ 120.0s = 0.0344265
CB @ 120.0s = 0.115437
CR @ 120.0s = 1.02208
CS @ 120.0s = 0.195148*

Final Concentrations with Step Size limited to 0.01

*CA (final) = 0.0125091
CB (final) = 0.0635012
CR (final) = 1.01398
CS (final) = 0.225166*

