
Scheme-8 Reactor-2

Part-2, Case-1

*tend = 360 sec
k1 = 0.1, k2 = 0.01*

NBt/NA_t = 1.21635

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

*WA = 200
WB = 60.8177
NBt = 3.24361
Vt = 2.13041
Tot.Solv. = 2
Sola/(SolR+Sola) = 0.5*

*CA0 = 1.25172
CB0 = 1.52253*

*Total input = 260.818 kg
Total output = 260.818 kg*

Chemical Balance Error = 0.000595623 kg (% 2.28368e-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) = 0.0125232
CB (final) = 0.00375636
CR (final) = 0.959611
CS (final) = 0.279582*

*CA @ 180.0s = 0.0153934
CB @ 180.0s = 0.0264881
CR @ 180.0s = 0.976602
CS @ 180.0s = 0.25972*

Final Concentrations with Step Size limited to 0.01

*CA (final) = 0.0125232
CB (final) = 0.00375636
CR (final) = 0.959611
CS (final) = 0.279582*

