
Scheme-9 Reactor-2

Part-2, Case-3

*tend = 720 sec
k1 = 0.1, k2 = 0.01*

NBt/NA_t = 1.42454

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

*WA = 200
WB = 71.2269
NBt = 3.79877
Vt = 2.13561
Tot.Solv. = 2
Sola/(SolR+Sola) = 0.5*

*CA0 = 1.24867
CB0 = 1.77877*

*Total input = 271.227 kg
Total output = 271.228 kg*

Chemical Balance Error = 0.00115758 kg (% 4.26792e-06)

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

Final Concentrations with Step Size limited to 0.01

*CA (final) = 0.0124924
CB (final) = 0.00056473
CR (final) = 0.694139
CS (final) = 0.542034*

*CA @ 360.0s = 0.0168421
CB @ 360.0s = 0.0196214
CR @ 360.0s = 0.704496
CS @ 360.0s = 0.527327*

Final Concentrations with Step Size limited to 0.1

*CA (final) = 0.0124924
CB (final) = 0.00056473
CR (final) = 0.694139
CS (final) = 0.542034*

