
Scheme-2 Reactor-2

Part-2, Case-3

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

NBt/NAt = 1.1452

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

*WA = 200
WB = 57.26
NBt = 3.05387
Vt = 2.12863
Tot.Solv. = 2
SolA/(SolR+SolA) = 0.5*

*CA0 = 1.25276
CB0 = 1.43466*

*Total input = 257.26 kg
Total output = 257.26 kg*

Chemical Balance Error = 0.000395758 kg (% 1.53836e-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) = 0.0125198
CB (final) = 0.00849957
CR (final) = 1.05432
CS (final) = 0.185921*

*CA @ 360.0s = 0.0207023
CB @ 360.0s = 0.0229717
CR @ 360.0s = 1.05243
CS @ 360.0s = 0.179632*

Final Concentrations with Step Size limited to 0.01

*CA (final) = 0.0125198
CB (final) = 0.00849957
CR (final) = 1.05432
CS (final) = 0.185921*

