
Scheme-8 Reactor-2

Part-2, Case-4

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

NBt/NA_t = 1.21847

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

*WA = 200
WB = 60.9236
NBt = 3.24926
Vt = 2.13046
Tot.Solv. = 2
Sola/(SolR+Sola) = 0.25*

*CA0 = 1.25168
CB0 = 1.52514*

*Total input = 260.924 kg
Total output = 260.924 kg*

Chemical Balance Error = 0.00058026 kg (% 2.22387e-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) = 0.0125182
CB (final) = 0.0136138
CR (final) = 0.966803
CS (final) = 0.272363*

*CA @ 120.0s = 0.0207691
CB @ 120.0s = 0.0565529
CR @ 120.0s = 0.99324
CS @ 120.0s = 0.237675*

Final Concentrations with Step Size limited to 0.01

*CA (final) = 0.0125182
CB (final) = 0.0136138
CR (final) = 0.966803
CS (final) = 0.272363*

