
Scheme-8 Reactor-2

Part-2, Case-6

*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 = 60.9235
NB_t = 3.24925
V_t = 2.13046
Tot.Solv. = 2
Sola/(SolR+Sola) = 0.5*

*CA₀ = 1.25168
CB₀ = 1.52514*

*Total input = 260.923 kg
Total output = 260.924 kg*

Chemical Balance Error = 0.000580256 kg (% 2.22385e-06)

*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)
Error tolerance: 0.01%*

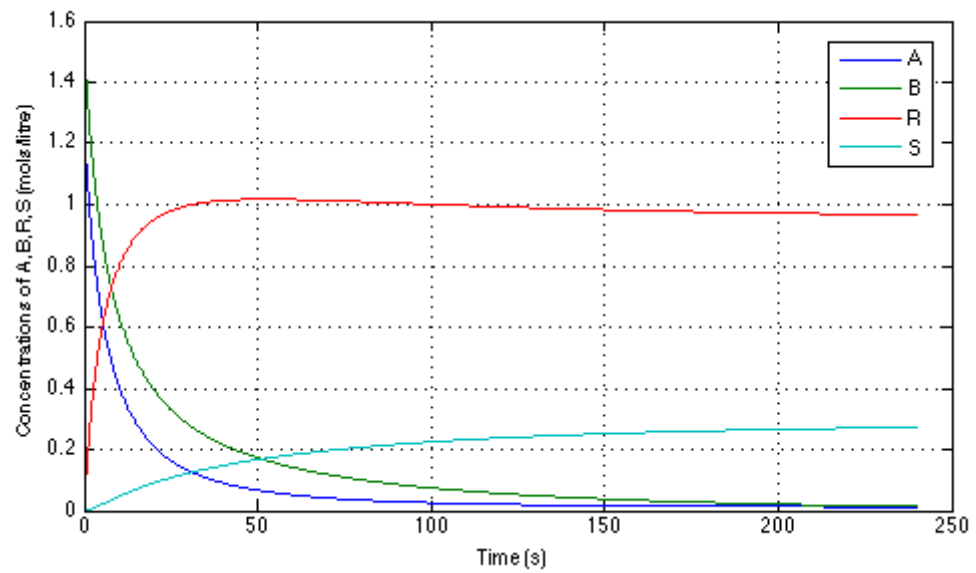
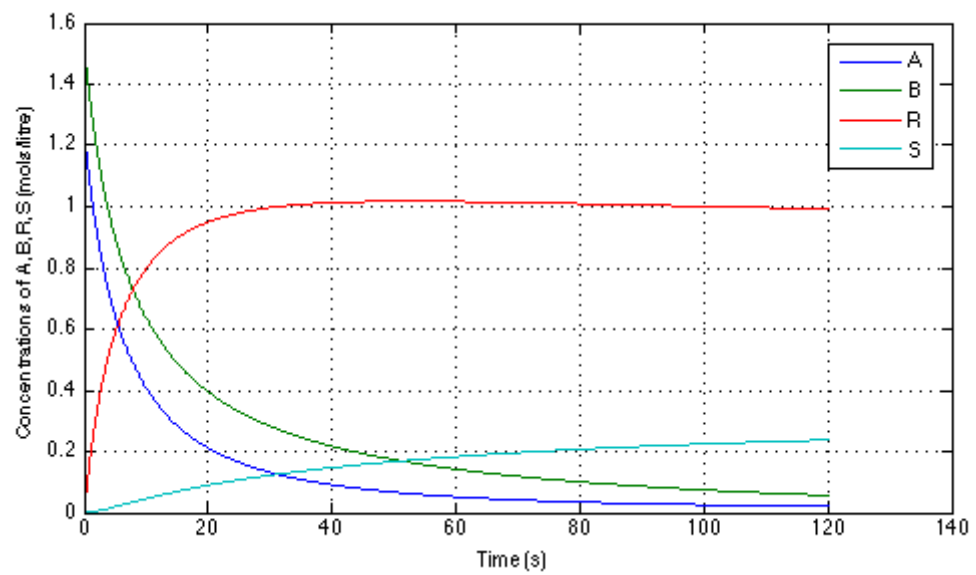
Final Concentrations with Step Size limited to 0.0001

*CA (final) = 0.0125194
CB (final) = 0.0136135
CR (final) = 0.966804
CS (final) = 0.272361*

*CA @ 120.0s = 0.0207706
CB @ 120.0s = 0.0565528
CR @ 120.0s = 0.993241
CS @ 120.0s = 0.237673*

Final Concentrations with Step Size limited to 0.001

*CA (final) = 0.0125194
CB (final) = 0.0136135
CR (final) = 0.966804
CS (final) = 0.272361*



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