
Scheme-7 Reactor-2

Part-2, Case-6

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

NBt/NA_t = 1.17559

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

*WA = 200
WB = 58.7795
NB_t = 3.13491
V_t = 2.12939
Tot.Solv. = 2
Sola/(SolR+Sola) = 0.5*

*CA₀ = 1.25231
CB₀ = 1.47221*

*Total input = 258.779 kg
Total output = 258.78 kg*

Chemical Balance Error = 0.000473956 kg (% 1.8315e-06)

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

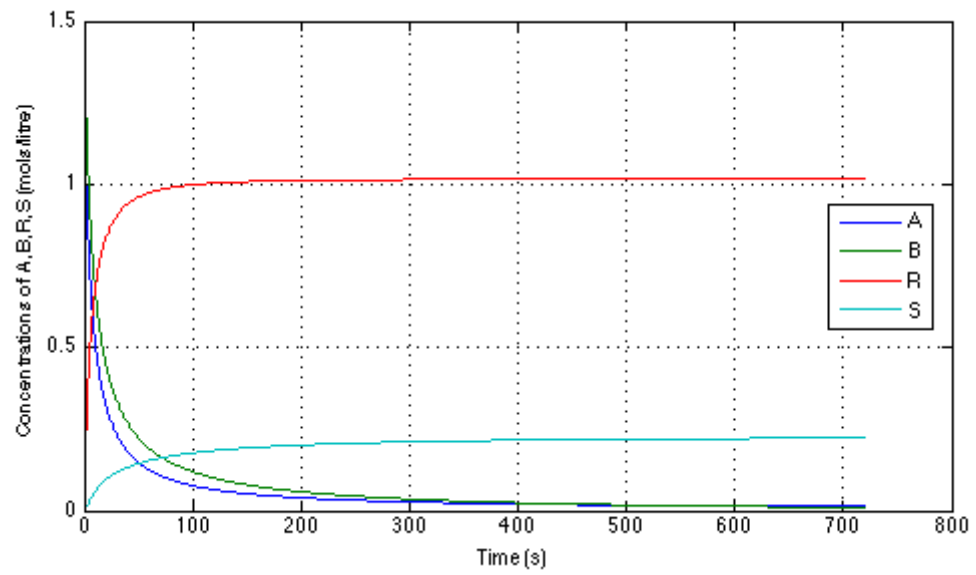
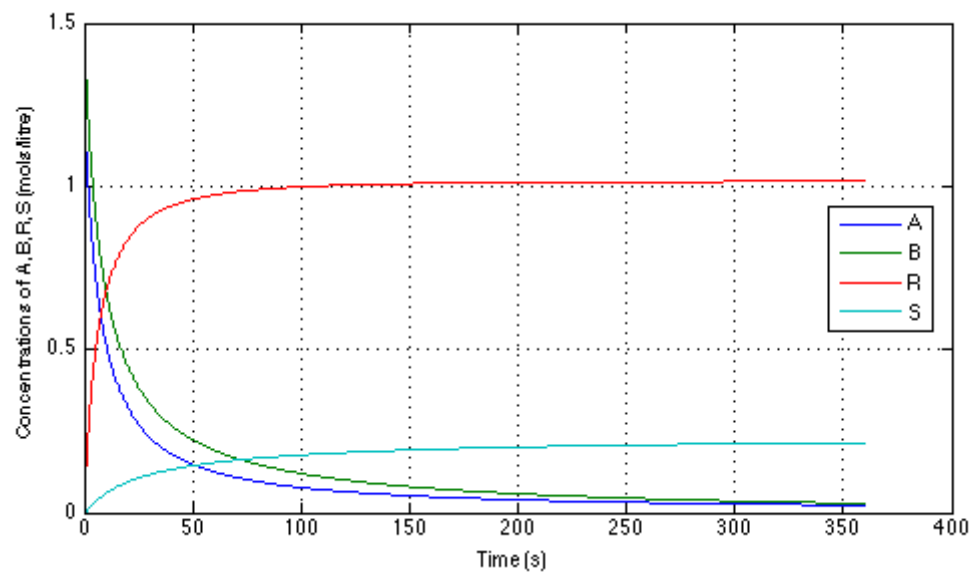
Final Concentrations with Step Size limited to 0.0001

*CA (final) = 0.0125247
CB (final) = 0.00984053
CR (final) = 1.01721
CS (final) = 0.222578*

*CA @ 360.0s = 0.0227591
CB @ 360.0s = 0.0282544
CR @ 360.0s = 1.01516
CS @ 360.0s = 0.214399*

Final Concentrations with Step Size limited to 0.001

*CA (final) = 0.0125247
CB (final) = 0.00984053
CR (final) = 1.01721
CS (final) = 0.222578*



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