
Scheme-3 Reactor-2

Part-2, Case-6

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

NBt/NA_t = 1.44783

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

*WA = 200
WB = 72.3915
NB_t = 3.86088
V_t = 2.1362
Tot.Solv. = 2
Sola/(SolR+Sola) = 0.5*

*CA₀ = 1.24833
CB₀ = 1.80736*

*Total input = 272.391 kg
Total output = 272.393 kg*

Chemical Balance Error = 0.0012209 kg (% 4.48215e-06)

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

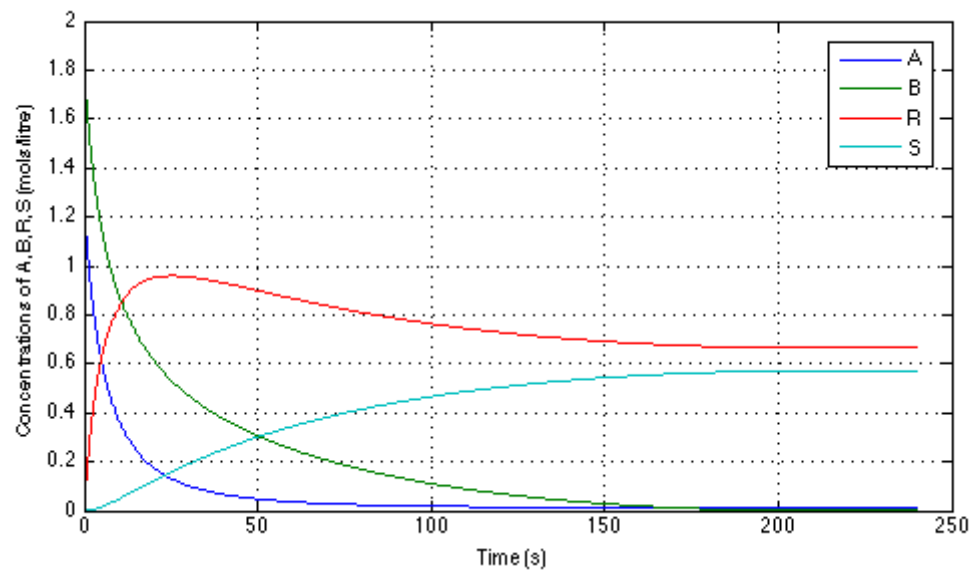
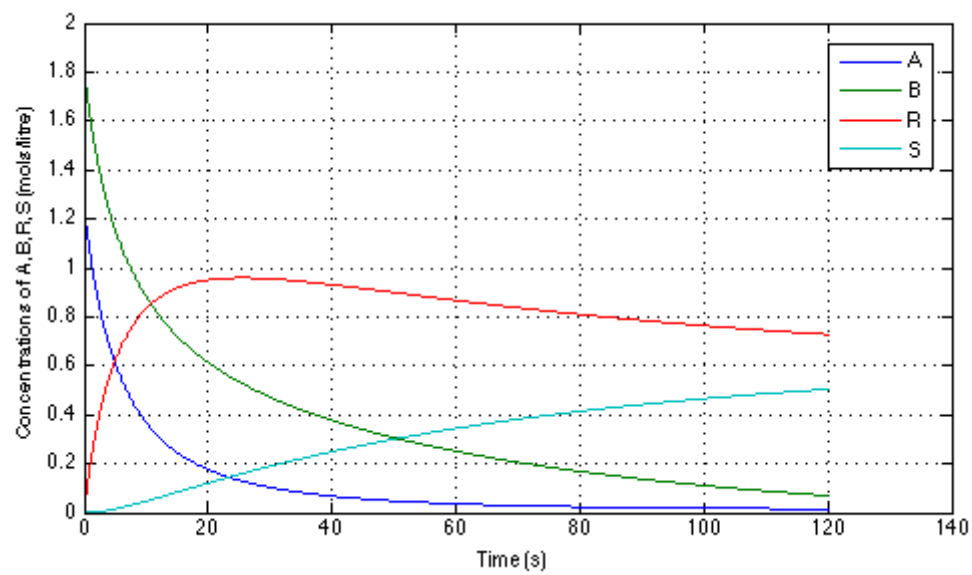
Final Concentrations with Step Size limited to 0.0001

*CA (final) = 0.0124929
CB (final) = 2.75574e-14
CR (final) = 0.664302
CS (final) = 0.57153*

*CA @ 120.0s = 0.015264
CB @ 120.0s = 0.0700326
CR @ 120.0s = 0.728792
CS @ 120.0s = 0.504269*

Final Concentrations with Step Size limited to 0.001

*CA (final) = 0.0124929
CB (final) = -2.75627e-12
CR (final) = 0.664302
CS (final) = 0.57153*



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