
Scheme-9 Reactor-2

Part-2, Case-11

*tend = 4500 sec
k1 = 0.1, k2 = 0.01*

NBt/NA_t = 1.41893

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

*WA = 200
WB = 70.9464
NB_t = 3.78381
V_t = 2.13547
Tot.Solv. = 2
Sola/(SolR+Sola) = 0.5*

*CA₀ = 1.24875
CB₀ = 1.77188*

*Total input = 270.946 kg
Total output = 270.948 kg*

Chemical Balance Error = 0.0011438 kg (% 4.22152e-06)

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

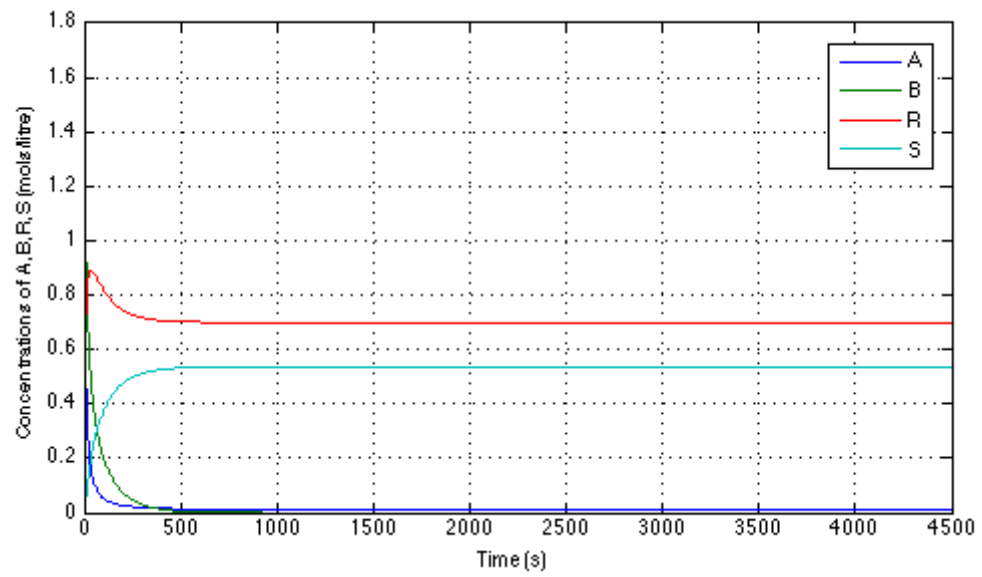
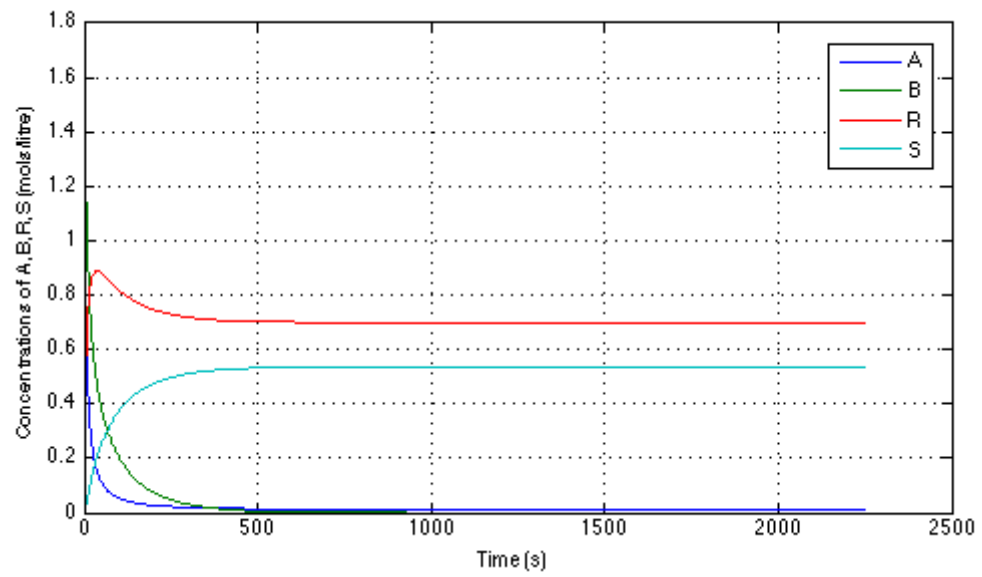
Final Concentrations with Step Size limited to 0.0001

*CA (final) = 0.012487
CB (final) = 1.60953e-17
CR (final) = 0.700639
CS (final) = 0.535621*

*CA @ 2250.0s = 0.012487
CB @ 2250.0s = 1.83062e-17
CR @ 2250.0s = 0.700639
CS @ 2250.0s = 0.535621*

Final Concentrations with Step Size limited to 0.001

*CA (final) = 0.012487
CB (final) = -1.82823e-15
CR (final) = 0.700639
CS (final) = 0.535621*



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