
Scheme-7 Reactor-1

art-2, Case-10

*ta = 240 sec, tm = 1200 sec
k1 = 0.1, k2 = 0.01*

NBt/NA_t = 1.05061

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

*WA = 200
WB = 52.5307
NB_t = 2.80164
V_t = 2.12627
V_{at} = 1.02627
Tot.Solv. = 2
SolA/(SolR+SolA) = 0.5*

*NA₀ = 2.66667
NB₀ = 0*

*Total input = 252.531 kg
Total output = 252.531 kg*

Chemical Balance Error = 0.000132302 kg (% 5.23904e-07)

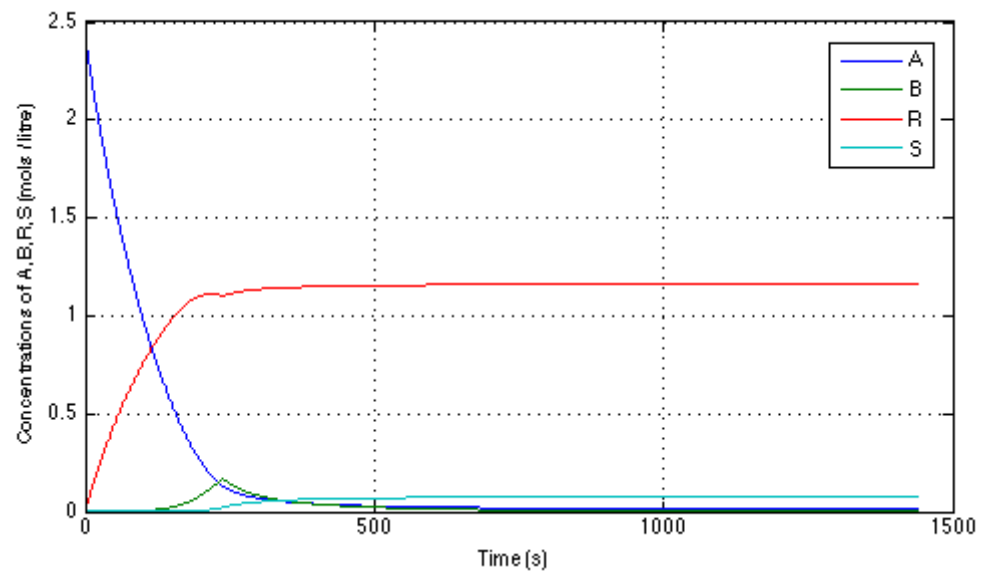
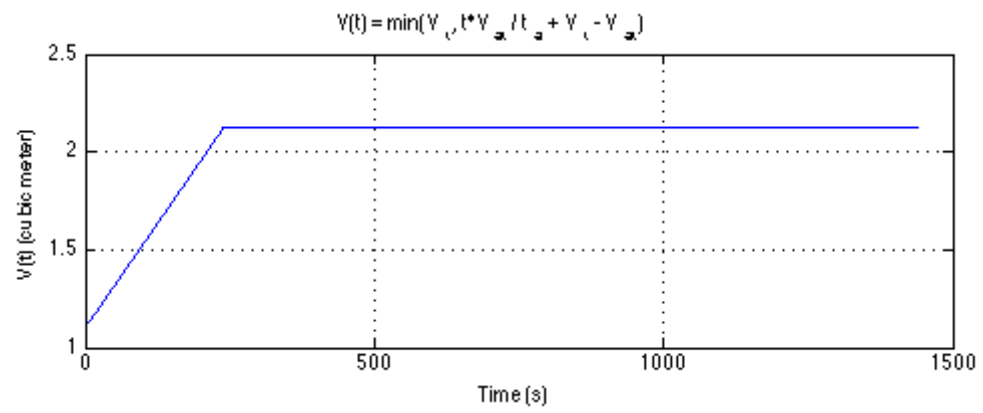
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)
Error tolerance: 0.01%*

Final Concentrations with Step Size limited to 0.001

*NA (final) = 0.0266281
NB (final) = 0.000630999
NR (final) = 2.47907
NS (final) = 0.160964*

Final Concentrations with Step Size limited to 0.01

*NA (final) = 0.0266256
NB (final) = 0.000631706
NR (final) = 2.47907
NS (final) = 0.160973*



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