
Scheme-2 Reactor-1

Part-2, Case-6

*ta = 1800 sec, tm = 1200 sec
k1 = 0.1, k2 = 0.01*

NBt/NA_t = 1.04755

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

*WA = 200
WB = 52.3775
NB_t = 2.79347
V_t = 2.12619
V_{a_t} = 1.02619
Tot.Solv. = 2
SolA/(SolR+SolA) = 0.5*

*NA₀ = 2.66667
NB₀ = 0*

*Total input = 252.377 kg
Total output = 252.378 kg*

Chemical Balance Error = 0.000152049 kg (% 6.02466e-07)

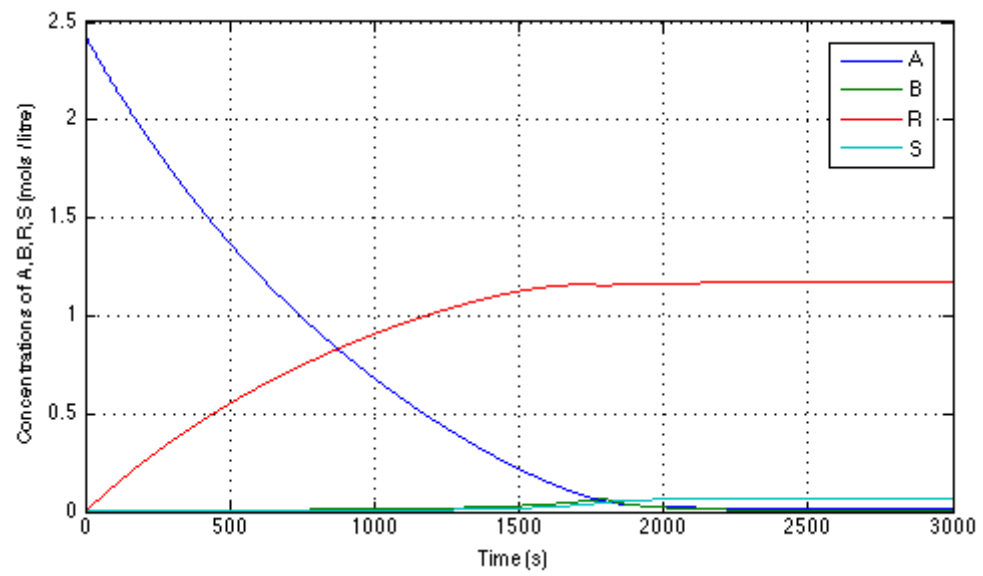
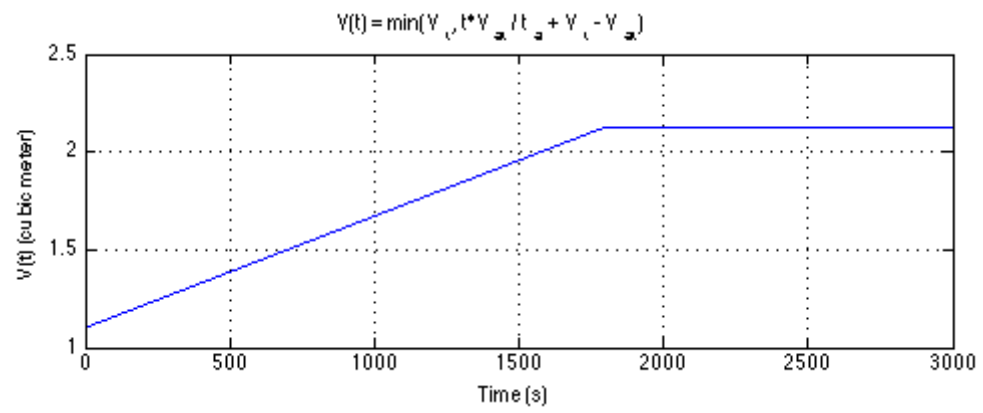
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)
Error tolerance: 0.01%*

Final Concentrations with Step Size limited to 0.001

*NA (final) = 0.0266681
NB (final) = 0.00407155
NR (final) = 2.4906
NS (final) = 0.149397*

Final Concentrations with Step Size limited to 0.01

*NA (final) = 0.0266677
NB (final) = 0.00407164
NR (final) = 2.4906
NS (final) = 0.149397*



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