
Scheme-8 Reactor-1

Part-2, Case-6

*ta = 450 sec, tm = 1200 sec
k1 = 0.1, k2 = 0.01*

NBt/NA_t = 1.31809

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

*WA = 200
WB = 65.9045
NB_t = 3.51491
V_t = 2.13295
V_{at} = 1.03295
Tot.Solv. = 2
SolA/(SolR+SolA) = 0.5*

*NA₀ = 2.66667
NB₀ = 0*

*Total input = 265.904 kg
Total output = 265.905 kg*

Chemical Balance Error = 0.000888194 kg (% 3.34028e-06)

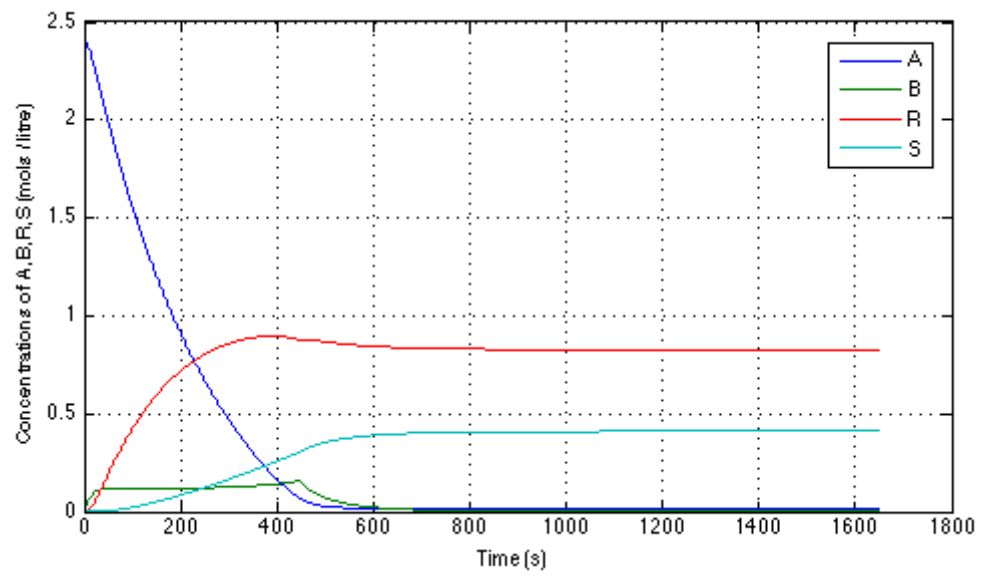
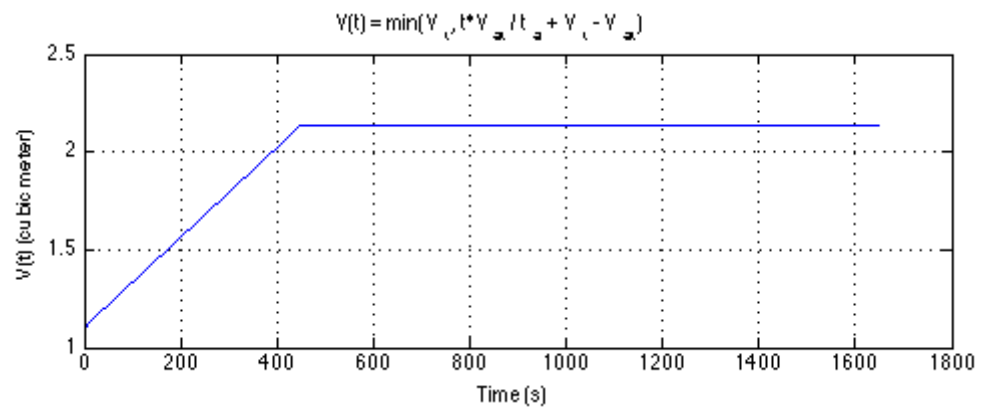
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)
Error tolerance: 0.01%*

Final Concentrations with Step Size limited to 0.001

*NA (final) = 0.0266105
NB (final) = 5.60674e-06
NR (final) = 1.76521
NS (final) = 0.874846*

Final Concentrations with Step Size limited to 0.01

*NA (final) = 0.0266085
NB (final) = 5.60698e-06
NR (final) = 1.76521
NS (final) = 0.87485*



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