
Scheme-9 Reactor-1

Part-2, Case-6

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

NBt/NA_t = 1.19215

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

*WA = 200
WB = 59.6075
NB_t = 3.17907
V_t = 2.1298
V_{at} = 1.0298
Tot.Solv. = 2
SolA/(SolR+SolA) = 0.5*

*NA₀ = 2.66667
NB₀ = 0*

*Total input = 259.608 kg
Total output = 259.608 kg*

Chemical Balance Error = 0.000542126 kg (% 2.08825e-06)

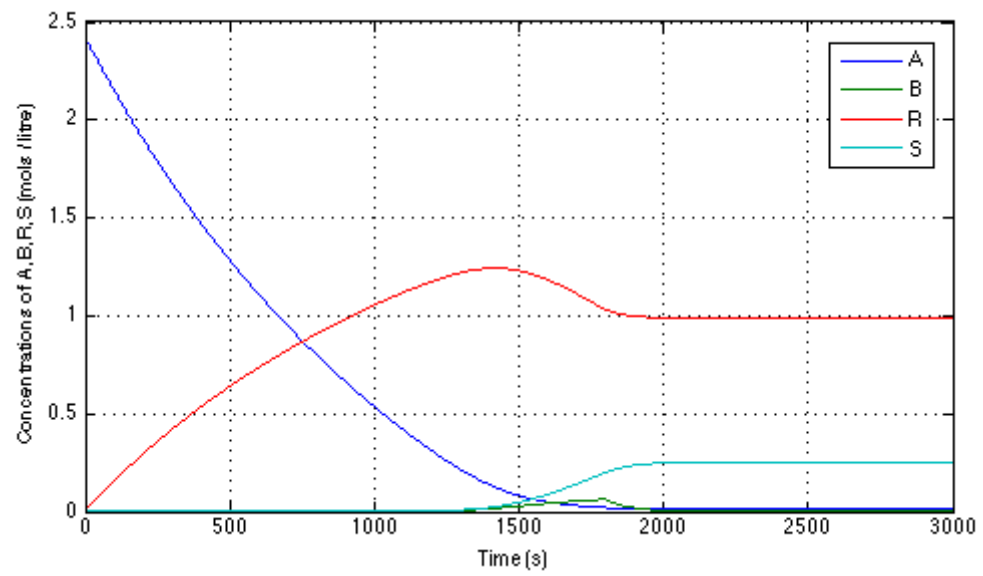
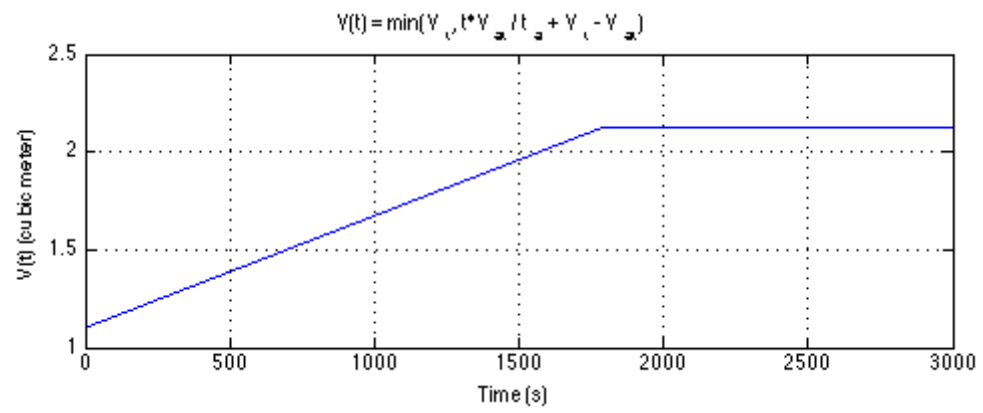
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)
Error tolerance: 0.01%*

Final Concentrations with Step Size limited to 0.001

*NA (final) = 0.0267076
NB (final) = 3.94696e-15
NR (final) = 2.10085
NS (final) = 0.539108*

Final Concentrations with Step Size limited to 0.01

*NA (final) = 0.0267075
NB (final) = 3.9488e-13
NR (final) = 2.10085
NS (final) = 0.539109*



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