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# Scheme-7 Reactor-1

*Part-2, Case-7*

*ta = 2400 sec, tm = 1200 sec  
k1 = 0.1, k2 = 0.01*

*NBt/NAt = 1.01048*

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

*WA = 200  
WB = 50.524  
NBt = 2.69461  
Vt = 2.12526  
Vat = 1.02526  
Tot.Solv. = 2  
Sola/(SolR+Sola) = 0.5*

*NA0 = 2.66667  
NB0 = 0*

*Total input = 250.524 kg  
Total output = 250.524 kg*

*Chemical Balance Error = 5.17419e-05 kg (% 2.06535e-07)*

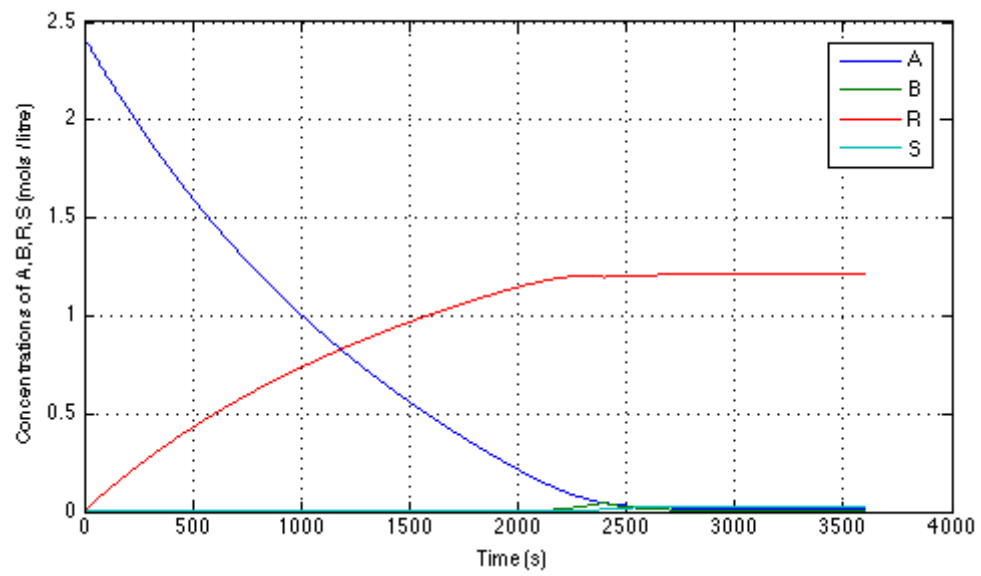
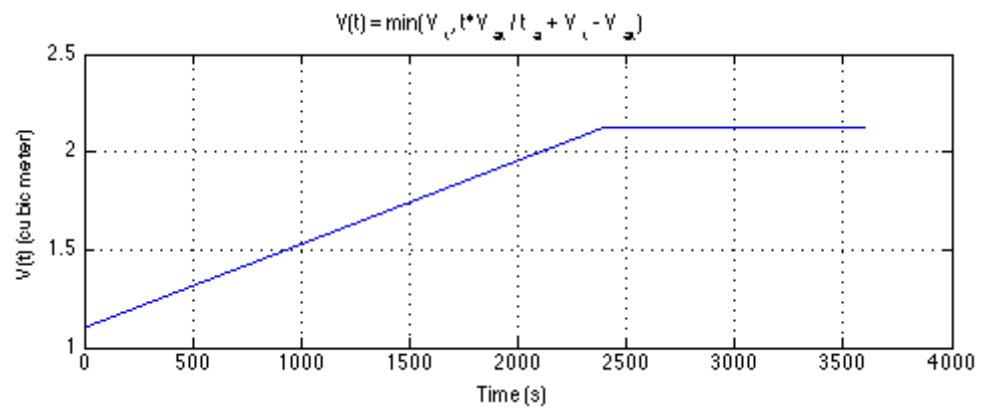
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)  
Error tolerance: 0.01%*

*Final Concentrations with Step Size limited to 0.001*

*NA (final) = 0.0266226  
NB (final) = 7.01638e-05  
NR (final) = 2.58555  
NS (final) = 0.0544987*

*Final Concentrations with Step Size limited to 0.01*

*NA (final) = 0.0266231  
NB (final) = 7.01185e-05  
NR (final) = 2.58555  
NS (final) = 0.0544979*



*Published with MATLAB® 7.12*