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# Scheme-2 Reactor-1

*Part-2, Case-7*

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

*NBt/NA<sub>t</sub> = 1.04291*

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

*WA = 200  
WB = 52.1454  
NB<sub>t</sub> = 2.78109  
V<sub>t</sub> = 2.12607  
V<sub>at</sub> = 1.02607  
Tot.Solv. = 2  
Sola/(SolR+Sola) = 0.5*

*NA<sub>0</sub> = 2.66667  
NB<sub>0</sub> = 0*

*Total input = 252.145 kg  
Total output = 252.146 kg*

*Chemical Balance Error = 0.00013435 kg (% 5.32829e-07)*

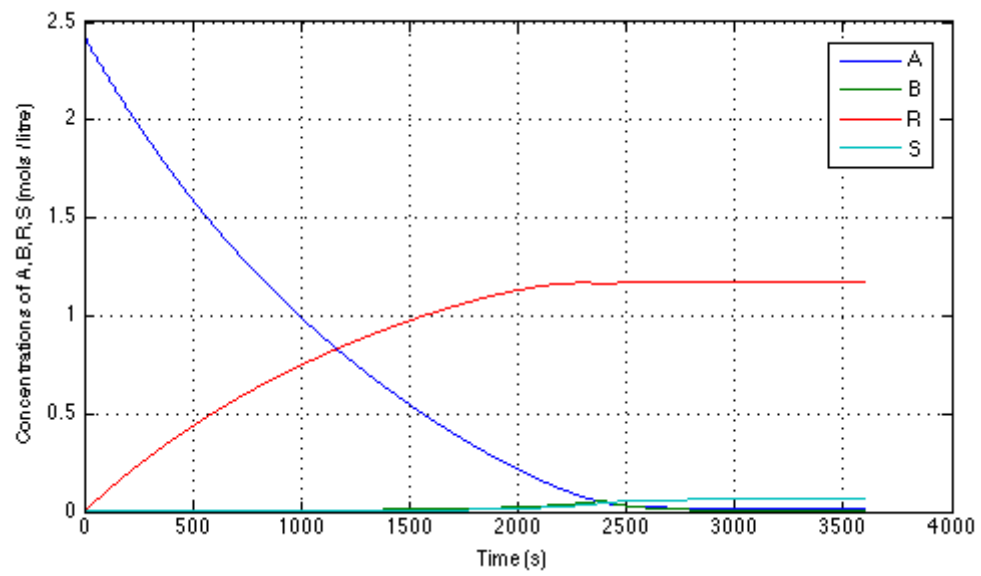
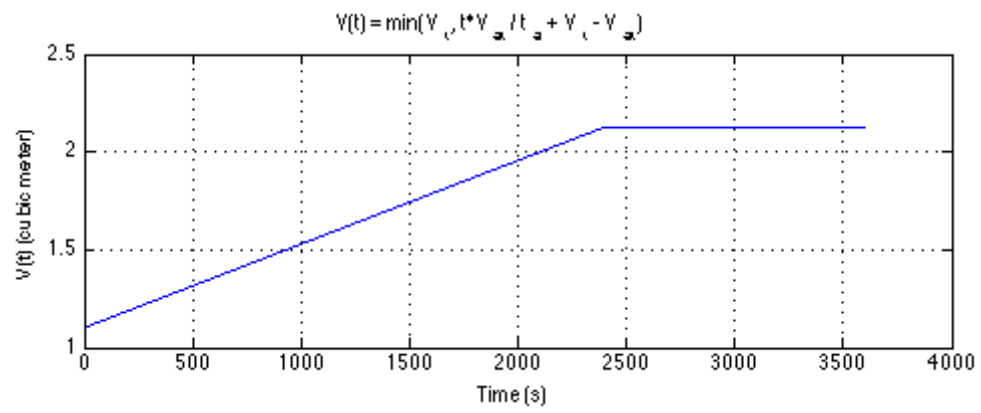
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)  
Error tolerance: 0.01%*

*Final Concentrations with Step Size limited to 0.001*

*NA (final) = 0.0266683  
NB (final) = 0.00389618  
NR (final) = 2.5028  
NS (final) = 0.137196*

*Final Concentrations with Step Size limited to 0.01*

*NA (final) = 0.0266687  
NB (final) = 0.00389608  
NR (final) = 2.5028  
NS (final) = 0.137195*



*Published with MATLAB® 7.12*