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# Scheme-3 Reactor-1

*Part-2, Case-6*

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

*NBt/NA<sub>t</sub> = 1.59789*

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

*WA = 200  
WB = 79.8945  
NB<sub>t</sub> = 4.26104  
V<sub>t</sub> = 2.13995  
V<sub>at</sub> = 1.03995  
Tot.Solv. = 2  
SolA/(SolR+SolA) = 0.5*

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

*Total input = 279.894 kg  
Total output = 279.896 kg*

*Chemical Balance Error = 0.00163723 kg (% 5.84947e-06)*

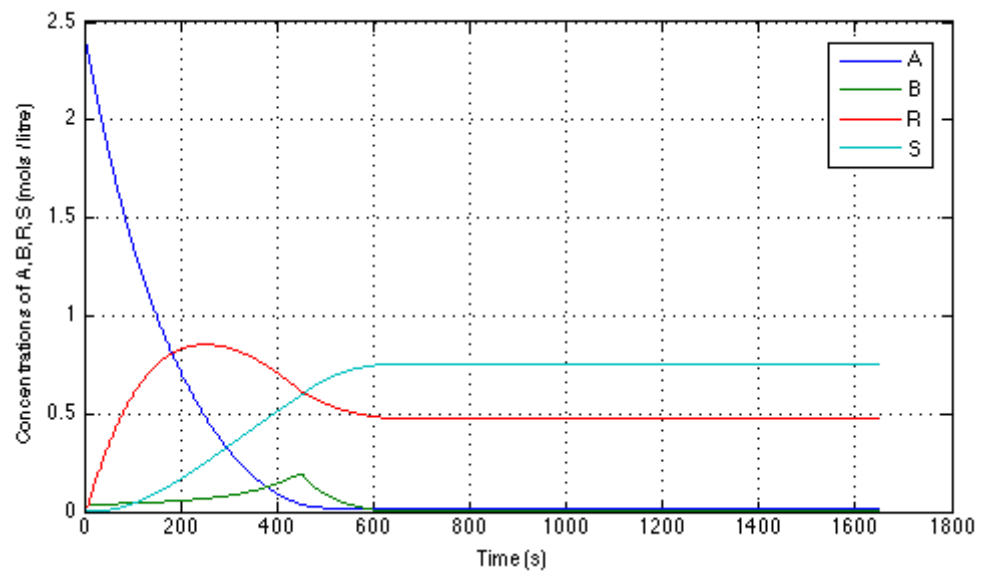
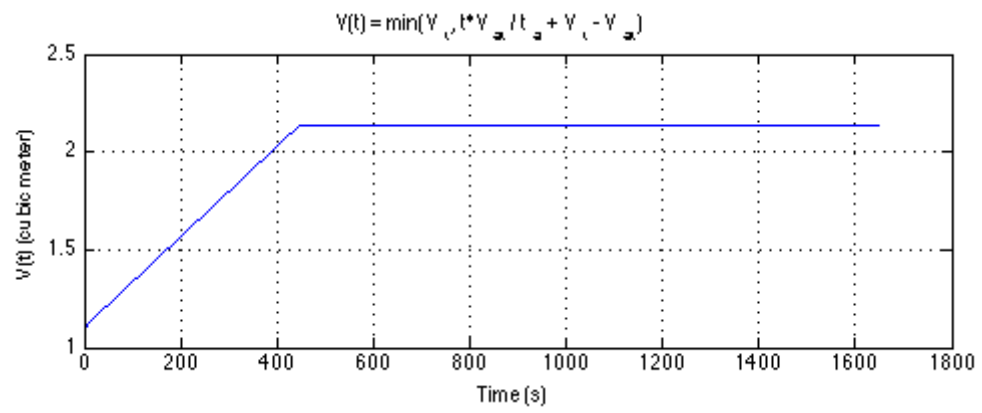
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)  
Error tolerance: 0.01%*

*Final Concentrations with Step Size limited to 0.001*

*NA (final) = 0.0266768  
NB (final) = 2.1718e-12  
NR (final) = 1.01894  
NS (final) = 1.62105*

*Final Concentrations with Step Size limited to 0.01*

*NA (final) = 0.0266759  
NB (final) = 2.172e-10  
NR (final) = 1.01893  
NS (final) = 1.62106*



*Published with MATLAB® 7.12*