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# Scheme-4 Reactor-1

*Part-2, Case-6*

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

*NBt/NA<sub>t</sub> = 1.56248*

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

*WA = 200  
WB = 78.124  
NBt = 4.16661  
Vt = 2.13906  
Vat = 1.03906  
Tot.Solv. = 2  
Sola/(SolR+Sola) = 0.5*

*NA0 = 2.66667  
NB0 = 0*

*Total input = 278.124 kg  
Total output = 278.126 kg*

*Chemical Balance Error = 0.00154243 kg (% 5.54585e-06)*

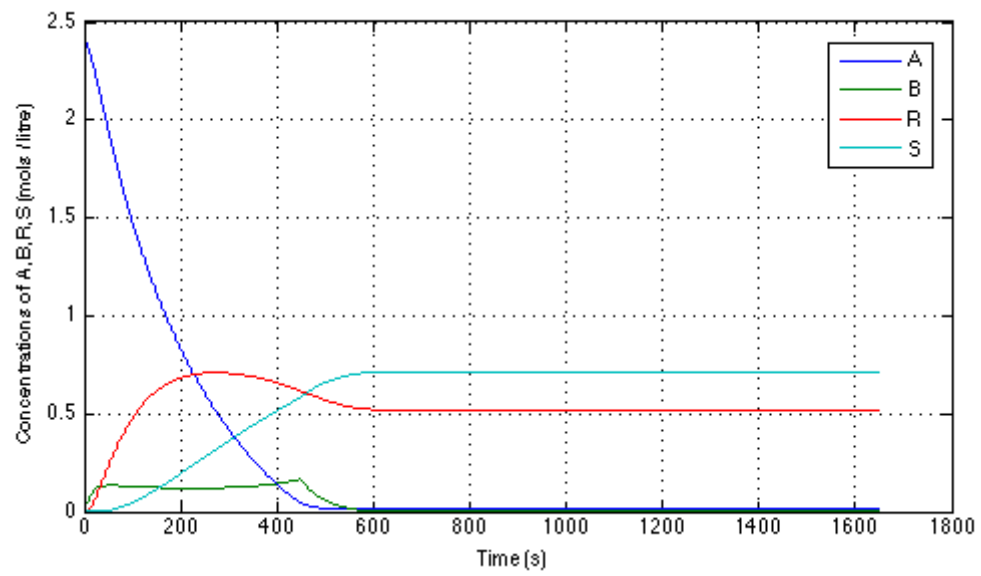
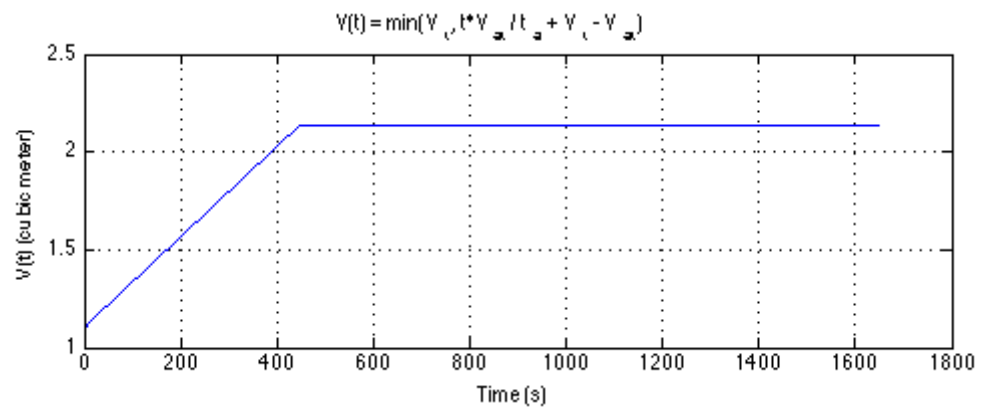
*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)  
Error tolerance: 0.01%*

*Final Concentrations with Step Size limited to 0.001*

*NA (final) = 0.0266629  
NB (final) = 2.83583e-12  
NR (final) = 1.11339  
NS (final) = 1.52661*

*Final Concentrations with Step Size limited to 0.01*

*NA (final) = 0.0266608  
NB (final) = -2.8361e-10  
NR (final) = 1.11339  
NS (final) = 1.52662*



*Published with MATLAB® 7.12*