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# Scheme-4 Reactor-2

*Part-2, Case-7*

*tend = 100 sec  
k1 = 0.1, k2 = 0.01*

*NBt/NA<sub>t</sub> = 1.3144*

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

*WA = 200  
WB = 65.7199  
NB<sub>t</sub> = 3.50506  
V<sub>t</sub> = 2.13286  
Tot.Solv. = 2  
Sola/(SolR+Sola) = 0.5*

*CA<sub>0</sub> = 1.25028  
CB<sub>0</sub> = 1.64336*

*Total input = 265.72 kg  
Total output = 265.721 kg*

*Chemical Balance Error = 0.000811451 kg (% 3.05378e-06)*

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

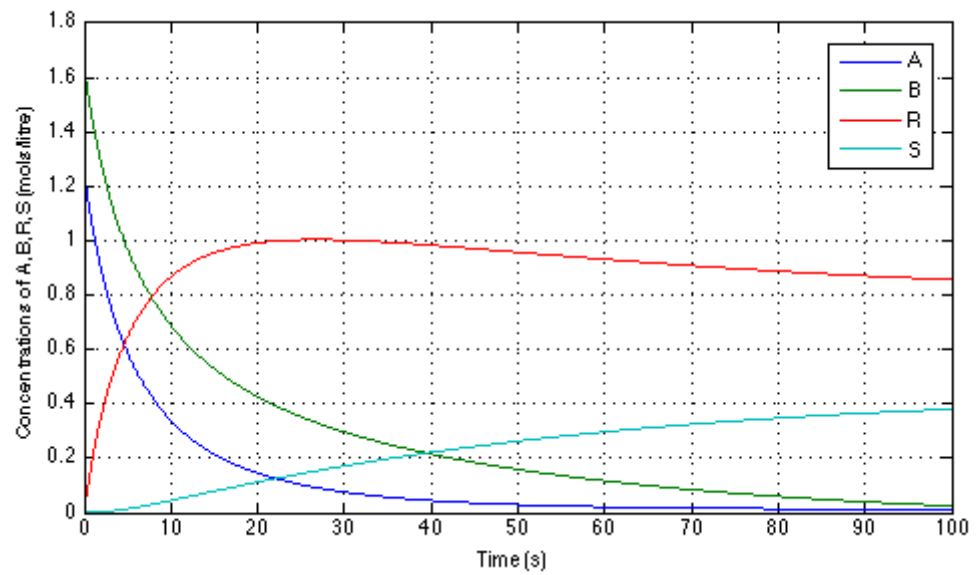
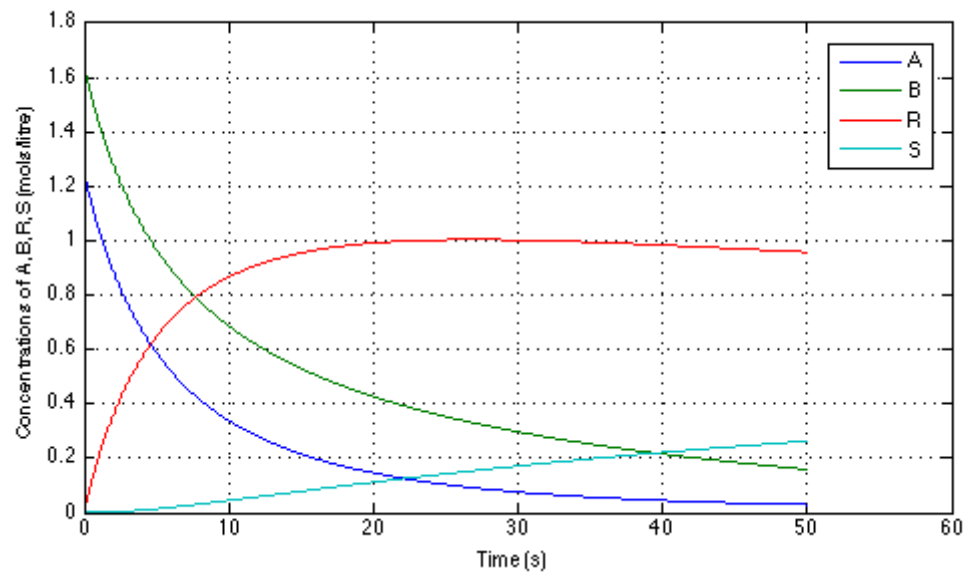
*Final Concentrations with Step Size limited to 0.0001*

*CA (final) = 0.0125045  
CB (final) = 0.0251376  
CR (final) = 0.857321  
CS (final) = 0.380452*

*CA @ 50.0s = 0.0294471  
CB @ 50.0s = 0.159683  
CR @ 50.0s = 0.957981  
CS @ 50.0s = 0.262849*

*Final Concentrations with Step Size limited to 0.001*

*CA (final) = 0.0125045  
CB (final) = 0.0251376  
CR (final) = 0.857321  
CS (final) = 0.380452*



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