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# Scheme-7 Reactor-2

*Part-3, Case-2*

*tend = 240 sec  
k1 = 0.1, k2 = 0.002*

*NBt/NA<sub>t</sub> = 1.37192*

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

*WA = 200  
WB = 68.5958  
NBt = 3.65844  
Vt = 2.1343  
Tot.Solv. = 2  
Sola/(SolR+Sola) = 0.5*

*CA0 = 1.24944  
CB0 = 1.71412*

*Total input = 268.596 kg  
Total output = 268.596 kg*

*Chemical Balance Error = 0.000330953 kg (% 1.23216e-06)*

*Solver: Explicit Runge-Kutta (4,5) Variable step (Dormand-Prince Pair)  
Error tolerance: 0.1%*

*Final Concentrations with Step Size limited to 0.001*

*CA (final) = 0.0124852  
CB (final) = 0.322106  
CR (final) = 1.08189  
CS (final) = 0.155064*

*CA @ 120.0s = 0.0346275  
CB @ 120.0s = 0.397666  
CR @ 120.0s = 1.11316  
CS @ 120.0s = 0.101646*

*Final Concentrations with Step Size limited to 0.01*

*CA (final) = 0.0124852  
CB (final) = 0.322106  
CR (final) = 1.08189  
CS (final) = 0.155064*

