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# Scheme-6 Reactor-2

*Part-2, Case-5*

*tend = 240 sec  
k1 = 0.1, k2 = 0.01*

*NBt/NA<sub>t</sub> = 1.15228*

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

*WA = 200  
WB = 57.614  
NBt = 3.07275  
Vt = 2.12881  
Tot.Solv. = 2  
Sola/(SolR+Sola) = 0.75*

*CA0 = 1.25266  
CB0 = 1.44341*

*Total input = 257.614 kg  
Total output = 257.614 kg*

*Chemical Balance Error = 0.000350132 kg (% 1.35913e-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) = 0.0125213  
CB (final) = 0.0388031  
CR (final) = 1.07566  
CS (final) = 0.164473*

*CA @ 120.0s = 0.0353585  
CB @ 120.0s = 0.0774151  
CR @ 120.0s = 1.0686  
CS @ 120.0s = 0.148699*

*Final Concentrations with Step Size limited to 0.01*

*CA (final) = 0.0125213  
CB (final) = 0.0388031  
CR (final) = 1.07566  
CS (final) = 0.164473*

