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# Scheme-1 Reactor-2

*Part-2, Case-3*

*tend = 720 sec  
k1 = 0.1, k2 = 0.01*

*NBt/NAt = 1.29025*

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

*WA = 200  
WB = 64.5125  
NBt = 3.44067  
Vt = 2.13226  
Tot.Solv. = 2  
SolA/(SolR+SolA) = 0.5*

*CA0 = 1.25063  
CB0 = 1.61363*

*Total input = 264.513 kg  
Total output = 264.513 kg*

*Chemical Balance Error = 0.000800222 kg (% 3.02527e-06)*

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

*Final Concentrations with Step Size limited to 0.01*

*CA (final) = 0.0124998  
CB (final) = 0.000203338  
CR (final) = 0.862838  
CS (final) = 0.375293*

*CA @ 360.0s = 0.0134124  
CB @ 360.0s = 0.00721434  
CR @ 360.0s = 0.868024  
CS @ 360.0s = 0.369195*

*Final Concentrations with Step Size limited to 0.1*

*CA (final) = 0.0124998  
CB (final) = 0.000203338  
CR (final) = 0.862838  
CS (final) = 0.375293*

