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# Scheme-8 Reactor-2

*Part-2, Case-5*

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

*NBt/NA<sub>t</sub> = 1.21847*

*Exponent a = 0.5  
Exponent b = 1.5  
Exponent c = 1  
Exponent d = 1*

*WA = 200  
WB = 60.9236  
NBt = 3.24926  
Vt = 2.13046  
Tot.Solv. = 2  
Sola/(SolR+Sola) = 0.75*

*CA0 = 1.25168  
CB0 = 1.52514*

*Total input = 260.924 kg  
Total output = 260.924 kg*

*Chemical Balance Error = 0.00058026 kg (% 2.22387e-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) = 0.0125182  
CB (final) = 0.0136138  
CR (final) = 0.966803  
CS (final) = 0.272363*

*CA @ 120.0s = 0.0207691  
CB @ 120.0s = 0.0565529  
CR @ 120.0s = 0.99324  
CS @ 120.0s = 0.237675*

*Final Concentrations with Step Size limited to 0.01*

*CA (final) = 0.0125182  
CB (final) = 0.0136138  
CR (final) = 0.966803  
CS (final) = 0.272363*

