

CH49019: COMPUTER AIDED PROCESS ENGINEERING LAB

Group Assignment

Submitted by: **Group J**

Group Members:

- 18CH10068 Isha Sharma
- 18CH10069 Saurabh Nayak
- 18CH10070 Yash Jhunjhunwala
- 18CH10071 Anshuman Agrawal
- 18CH10072 Apoorv Singh

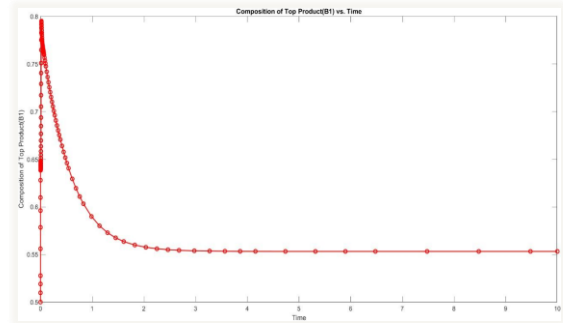
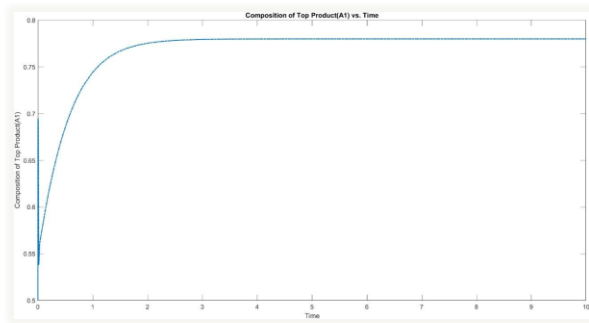
Results:

Steady State values:

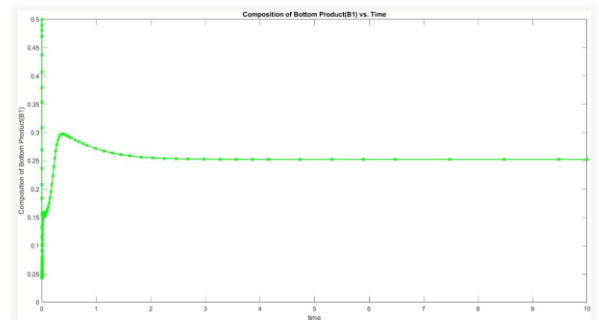
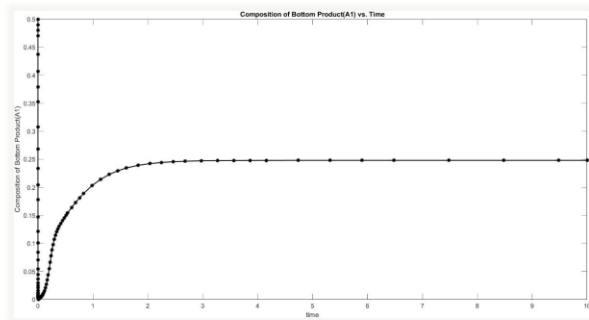
$X_{A,R}$	0.899724	$X_{A1,11}$	0.939141
$X_{B,R}$	0.410421	$X_{A1,12}$	0.938458
$X_{A1,D}$	0.906727	$X_{A1,13}$	0.936012
$X_{B1,D}$	0.426606	$X_{A1,14}$	0.927331
$X_{A1,1}$	1.062721	$X_{A1,15}$	0.893154
$X_{A1,2}$	1.147098	$X_{B1,5}$	0.148263
$X_{A1,3}$	1.19665	$X_{B1,6}$	0.148263
$X_{B1,1}$	0.270613	$X_{B1,7}$	0.148263
$X_{B1,2}$	0.186235	$X_{B1,8}$	0.148263
$X_{B1,3}$	-1.55124	$X_{B1,9}$	0.148263
$X_{A1,f}$	0.939405	$X_{B1,10}$	0.148263
$X_{B1,f}$	0.148263	$X_{B1,11}$	0.148263
$X_{A1,5}$	0.939405	$X_{B1,12}$	0.148263
$X_{A1,6}$	0.939405	$X_{B1,13}$	0.148263
$X_{A1,7}$	0.939404	$X_{B1,14}$	0.148263
$X_{A1,8}$	0.9394	$X_{B1,15}$	0.142799
$X_{A1,9}$	0.939385	$X_{A1,B}$	0.775069
$X_{A1,10}$	0.939332	$X_{B1,B}$	0.123919

Plots Obtained:

- Plots of the composition of top products (A1 and B1) vs time



- Plots of the composition of bottom products (A1 and B1) vs time



Group member's contribution:

- **Isha Sharma:** Writing the documentation and the code for condenser equations
- **Anshuman Agrawal:** Writing the code for reactor equations and compiling entire code
- **Yash Jhunjunwala:** Writing the code for tray equations
- **Saurabh Nayak:** Writing the reboiler equations segment in the code
- **Apoorv Singh:** Writing the equilibrium equations segment in the code