NAME: OGOMUEGBUNAM FAVOUR CHIDI

MATRIC NO: 17/ENG01/021

COURSE TITLE: CHE 362

ASSIGNMENT

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| A |  |  |  |  | B |  |
| xylene | 0.07 | 0.18 | 0.15 | 0.24 |  | 10.5 |
| styrene | 0.04 | 0.24 | 0.1 | 0.65 |  | 17.5 |
| toluene | 0.54 | 0.42 | 0.54 | 0.1 |  | 28 |
| benzene | 0.35 | 0.16 | 0.21 | 0.01 |  | 14 |
|  |  |  |  |  |  |  |
| A^-1 |  |  |  |  | B |  |
| xylene | -2.810 | 1.221774 | -1.80242 | 6.060484 |  | 10.5 |
| styrene | 94.36 | -29.8306 | -36.6855 | 41.1371 |  | 17.5 |
| toluene | -66.04 | 20.24597 | 30.52823 | -36.2056 |  | 28 |
| benzene | -24.50 | 9.362903 | 8.959677 | -9.99194 |  | 14 |
|  |  |  |  |  |  |  |
| X |  |  |  |  |  |  |
| D1 | 26.25 |  |  |  |  |  |
| B1 | 17.5 |  |  |  |  |  |
| D2 | 8.75 |  |  |  |  |  |
| B2 | 17.5 |  |  |  |  |  |
| stream D |  |  |  |  |  |  |
| component | mol in d1 | mol in b1 | mol in d | % |  |  |
| xylene | 1.8375 | 3.15 | 4.9875 | 11.4 |  |  |
| styrene | 1.05 | 4.2 | 5.25 | 12 |  |  |
| toluene | 14.175 | 7.35 | 21.525 | 49.2 |  |  |
| benzene | 9.1875 | 2.8 | 11.9875 | 27.4 |  |  |
|  |  |  |  |  |  |  |
| Stream B |  |  |  |  |  |  |
| component | mol in d2 | mol in b2 | mol in b | % |  |  |
| xylene | 1.3125 | 4.2 | 5.5125 | 21 |  |  |
| styrene | 0.875 | 11.375 | 12.25 | 46.66667 |  |  |
| toluene | 4.725 | 1.75 | 6.475 | 24.66667 |  |  |
| benzene | 1.8375 | 0.175 | 2.0125 | 7.666667 |  |  |
| D | =D1+B1 | =26.25+17.5 | =43.75 |  |  |  |
| B | =D2+B2 | =8.75+17.5 | =26.25 |  |  |  |

