Оглавление

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## Сравнение flash-расчета для смесей чистых компонент

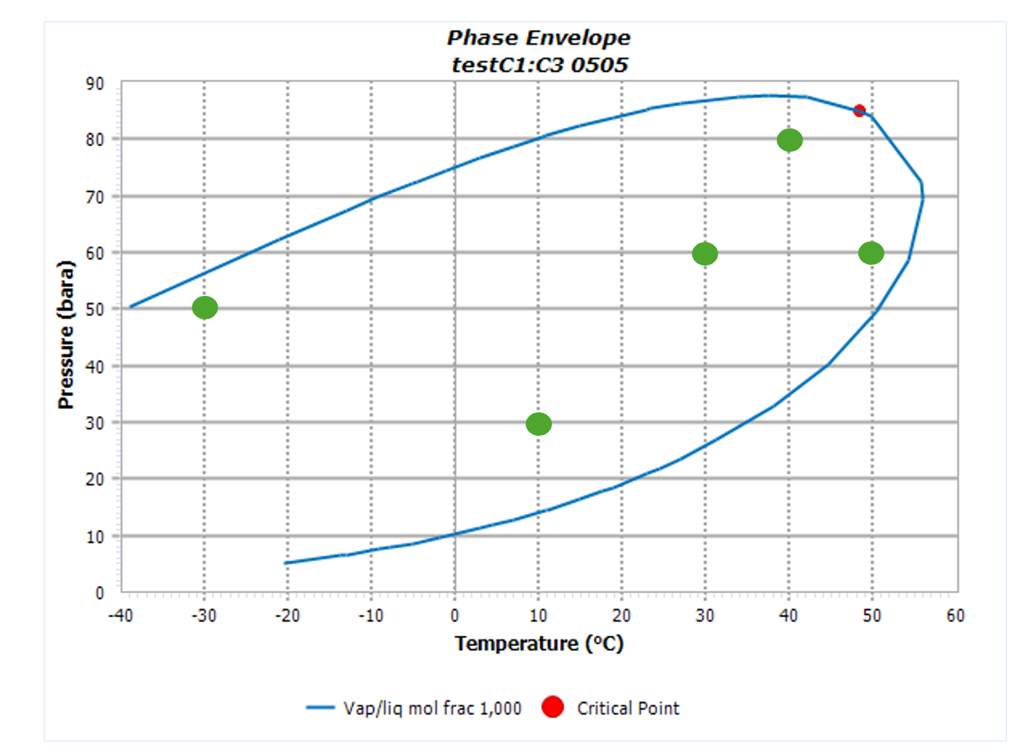
## C1 – C3 0.5 : 0.5

Таблица 1.1. – исходные данные

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Софт | Молекулярная масса | | Рcrit | | Tcrit | | Ацентрический фактор | | BIP |
| C1 | C3 | C1 | C3 | C1 | C3 | C1 | C3 |  |
| PVTsim | + | + | 46 | 42,46 | 190,59 | 369,79 | 0,08 | 0,152 |  |
| **Python** | **16.043** | **44.097** | **46.04** | **42.46** | **190.6** | **369.79** | **0.013** | **0.152** |  |

Таблица 1.2. Результаты flash-расчетов

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **P = 30 бар, Т = 10 С** | | **P = 50 бар, Т = -30 С** | | **P = 60 бар, Т = 30 С** | | **P = 80 бар, Т = 40 С** | | **P = 60 бар, Т = 50 С** | |
| PVTsim | Python | PVTsim | Python | PVTsim | Python | PVTsim | Python | PVTsim | Python |
| Fv (доля пара) | 0.6042 | 0.6078 | 0.1114 | 0.1230 | 0.5063 | 0.5136 | 0.3841 | 0.3921 | 0.8589 | 0.8720 |
| Z газа | 0.8249 | 0.8184 | 0.7389 | 0.7272 | 0.6937 | 0.6822 | 0.5772 | 0.5634 | 0.6349 | 0.6212 |
| Z жидкости | 0.1089 | 0.1010 | 0.1756 | 0.1613 | 0.2256 | 0.2111 | 0.3359 | 0.3185 | 0.2443 | 0.2303 |
| Состав газовой фазы | | | | | | | | | | |
| C1 | 0.71956 | 0.7183 | 0.931 | 0.9307 | 0.68615 | 0.6851 | 0.62126 | 0.6207 | 0.53903 | 0.5355 |
| C3 | 0.28044 | 0.2817 | 0.069 | 0.0693 | 0.31385 | 0.3149 | 0.37874 | 0.3793 | 0.4697 | 0.4645 |
| Состав жидкой фазы | | | | | | | | | | |
| C1 | 0.16482 | 0.1617 | 0.44595 | 0.4396 | 0.30906 | 0.3045 | 0.42439 | 0.4221 | 0.26248 | 0.2581 |
| C3 | 0.83518 | 0.8383 | 0.55405 | 0.5604 | 0.69094 | 0.6955 | 0.57561 | 0.5779 | 0.73752 | 0.7419 |
| Ki | | | | | | | | | | |
| C1 | 4.366 | 4.4414 | 2.088 | 2.1171 | 2.22 | 2.2495 | 1.464 | 1.4704 | 2.054 | 2.0751 |
| C3 | 0.336 | 0.3360 | 0.125 | 0.1237 | 0.454 | 0.4528 | 0.658 | 0.6563 | 0.625 | 0.626 |



Фазовая диаграмма с точками расчета

## C1 – C2 – C3 0.6 : 0.3 : 0.1