闪蒸计算-第2次课 返回

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**一.简答题** (共3题,100.0分)

1 Under normal pressure, equilibrium distillation（flash distillation） with a mixture containing 60% benzene and 40% toluene（mol ratio）, with a vaporization rate of 30%. The relative volatility of the system is 2.47. Calculate the composition of the vapor and liquid phases.

(1) 在常压下将含苯60%，甲苯40%的混合液进行平衡蒸馏，汽化率为30%，已知物系的相对挥发度为2.47, 试求：汽、 液两相的组成。

我的答案:

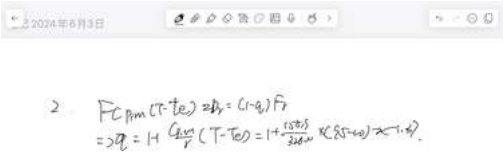
2 The feed F entering the distillation tower is benzene-toluene. It is known that the bubble point temperature of the raw material liquid is 95 ℃, the average specific heat capacity is 158.9 J/(mol · K), and the latent heat of vaporization is 32 600 J/mol.

What is the thermal state parameter q for feeding when the feed temperature is 20 ℃?

(2)进入精馏塔的物料F为苯-甲苯，已知原料液的泡点温度为95℃, 平均比热容为158.9J/(mol·K)， 汽化潜热为 32 600 J/mol。

求进料温度为20℃时，加料热状态参数q为多少?

我的答案:



3 The feed F entering the distillation tower is mixture of benzene-toluene, which is fed in with a gas-liquid mixed state which ratio of liquid to vapor is 3:1. What is the thermal state parameter q of the feed?

(3)进入精馏塔的物料F为苯-甲苯，在汽液混合状态下进料，液汽比为3:1, 加料热状态参数q为多少?

我的答案: