Unit 12 - Week 10: Liquid - Liquid Equilibria of Multicomponent Non-Ideal Systems

Assessment 10

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-04-08, 23:59 IST.

1) For a binary liquid mixture if the condition given is $T>T_c$, where T_c is the critical solution temperature, then the solution is *4 points*

- Completely miscible
- Partially miscible
- Completely immiscible
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Completely miscible

2) For a binary liquid mixture if the condition given is $T<T_c$, where T_c is the critical solution temperature, then the solution is *4 points*

- Completely miscible
- Partially miscible
- Completely immiscible
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Partially miscible

3) In phase diagram for partially miscible liquids, which of the following is a correct statement *4 points*

- Binodal curve is boundary between one phase region and two phase region
- Within two phase region, spinodal curve distinguishes the unstable region from metastable region
- All of the above
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above

4) For a mixture of real solution $g^E=Ax_1x_2$, thus the condition of instability occurs whenever *4 points*

- $\frac{A}{RT}=1$
- $\frac{A}{RT}>2$
- $\frac{A}{RT}\ll 2$
- $\frac{A}{RT}=0$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$\frac{A}{RT}>2$

5) Border line between stability and instability of a liquid mixture is called *4 points*

- Incipient instability
- Critical instability
- Stable point
- Unstable point

No, the answer is incorrect.
Score: 0

Accepted Answers:
Incipient instability

6) Condition of instability of a binary liquid mixture is given as *4 points*

- $\left(\frac{\partial^2 g_{mix}}{\partial x^2}\right)_{T,P}<0$
- $\left(\frac{\partial^2 g_{mix}}{\partial x^2}\right)_{T,P}\gg 0$
- $\left(\frac{\partial g_{mix}}{\partial x}\right)_{T,P}=0$
- $\left(\frac{\partial^2 g_{mix}}{\partial x^2}\right)_{T,P}>0$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$\left(\frac{\partial^2 g_{mix}}{\partial x^2}\right)_{T,P}<0$