

MASS TRANSFER OPERATIONS LAB

COURSE CODE: 15CH1126

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COURSE OUTCOMES:

At the end of the course the student shall be able to

- CO 1** Prepare the VLE data, verify the Rayleigh equation and law of steam distillation.
- CO 2** Calculate the Diffusivity of solute in gases and liquids.
- CO 3** Calculate the mass transfer coefficient of solute in vapor phase and liquid phase.
- CO 4** Prepare the constant drying curve, liquid-liquid equilibrium data and saturation isotherm data using TLE.
- CO 5** Estimate the height equivalent to theoretical plate to a packed bed distillation column.

LIST OF EXPERIMENTS/PROGRAMMES:

1. Estimation of Vapor Diffusion Coefficient.
2. Estimation of Liquid Diffusion Coefficient.
3. Evaluation of Mass transfer coefficients by Surface Evaporation Unit.
4. Obtain the Rate of Drying using Tray Dryer.
5. Verify the law of Steam Distillation.
6. Verify Rayleigh's equation using Differential Distillation.
7. Determine the Vapor Liquid Equilibrium for the given system.
8. Determine the equilibrium distribution data for the given system using LLE.
9. Determine the saturation isotherm for the given system using TLE.
10. Determine Height Equivalent to Theoretical Plate.
