BE/CHEMICAL ENGINEERING

Subject Name: MASS TRANSFER OPERATION-I

Subject Code: 3150501

Lab Location: L-2

Sr.No.	Experiment
1	To determine the diffusion co-efficient of CCl4 in air & it's variation with temperature
2	Determine mass transfer co-efficient of liquid (water) evaporation to atmospheric air at elevated temperature
3	To determine the % extraction for the benzoic acid from dilute aqueous solution using toluene as solvent.
4	To study multistage (cross current) liquid-liquid extraction for extracting acetic acid from benzene using water as solvent.
5	To determine the stage efficiency and the overall recovery of NaOH for multistage cross current leaching operation for leaching of NaOH from mixture of NaOH and CaCO3 using water as a solvent.
6	To find out crystal yield with & without seeding
7	To find out the liquid side mass transfer coefficient KLa for the absorption of CO2 in NaOH in the packed column.
8	To prepare ternary diagram for a system of three liquid –one pair partially soluble

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(A Vidyabharti Trust Institution)

Subject Name: MASS TRANSFER OPERATION-II

Subject Code: 3160501

Lab Location: L-2

Sr.No.	Experiment
1	To study and verify the Freundlich's Adsorption Isotherm Adsorbing Oxalic Acid and Charcoal
2	To study the Characteristics of Adsorption for Silica Gel
3	To measure the vapor pressure of acetone and calculate latent heat of vaporization.
4	To study the humidification operation and calculate all the terminology's used for air – water contact operation.
5	To determine pressure drop data and values of mass transfer coefficient for various air and liquid velocities in a counter cooling tower.
6	a. To Verify Rayleigh's Equation for Differential Distillation b. To plot Fraction of Charge of Distillates V/S Residue Compo.& temperature of distillations
7	To verify the Equilibrium Relationship for n-Butanol Water System
8	To verify Henry's Law for Steam Distillation.
9	To find out the Critical Moisture Content of a given material & find out its equation for constant and filling rate period