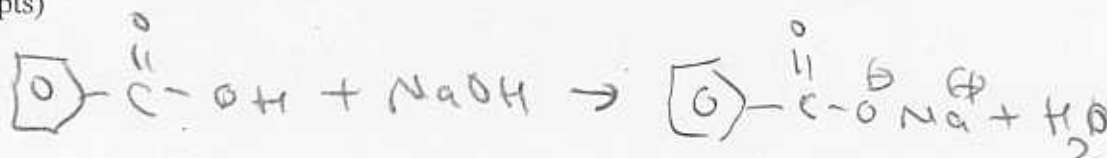


1. Name two reactants you will use today! (4 pts)

stilbene, pyridinium perbromide

2. Write a balanced equation for the reaction of benzoic acid with sodium hydroxide! (4 pts)



3. Indicate any correct statements: a) "Benzoic acid is less soluble in water than sodium benzoate" b) "The solubility of benzoic acid in water decreases with increasing temperature" c) "In any extraction, the organic phase is always the bottom phase in the separatory funnel" d) "The density of a fluid is expressed in grams/liter", e) "Liquid/liquid extractions require two immiscible solvents" (5 pts)

4. If the density of MTBE is 0.74, how many grams would 100 mL of this solvent weigh? (3 pts)

74 grams

5. State a full, valid name for MTBE (2 pts)

tert-butyl methyl ether

6. The separation we carried out last time was attempted with different organic solvents (instead of MTBE): a. dichloromethane, b. diethyl ether, c. cyclohexane, d. acetone. All solvents readily dissolve biphenyl, yet one of these was found to be unsuitable. Which one, and why? (2 pts)

acetone, it is miscible with water