

SUBJECT - CHEMISTRY

CLASS - B.Sc (Subjten) PART-II

GROUP - C

TOPIC - Fries rearrangement

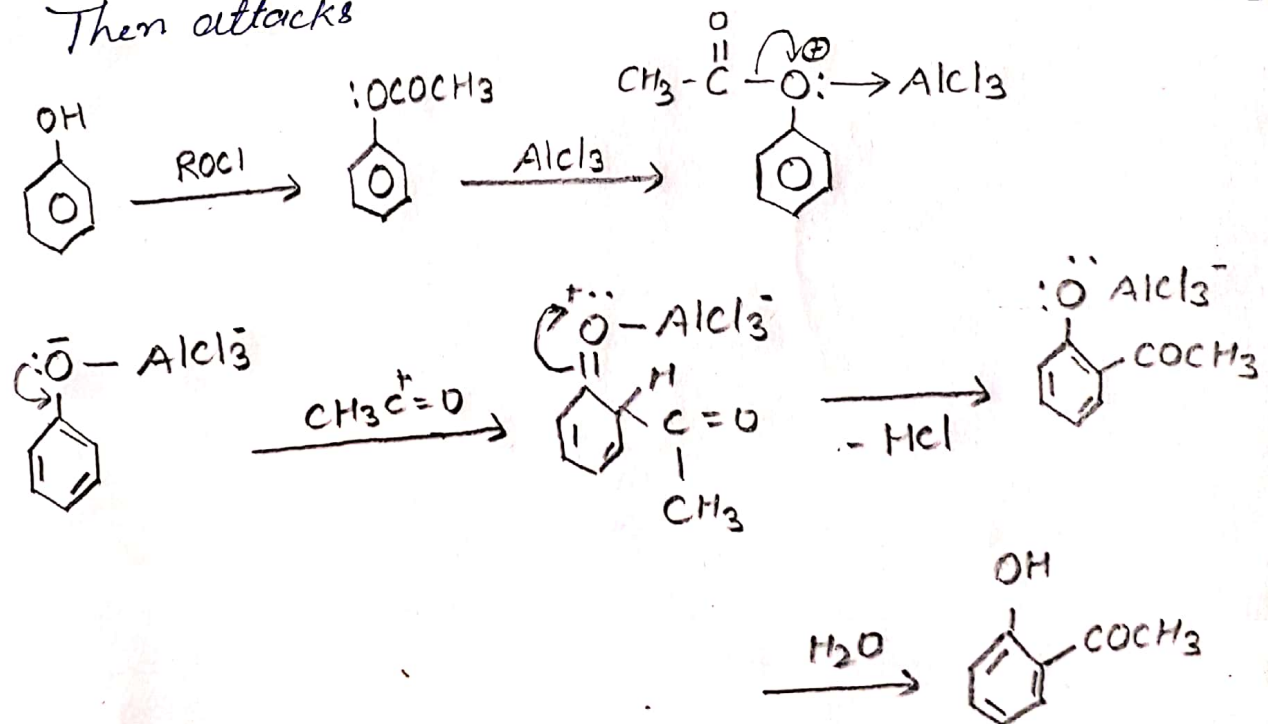
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Fries rearrangement: When phenyl esters are heated with anhydrous $AlCl_3$ o- & p-phenolic ketones are formed. This reaction is called Fries rearrangement. It involves the migration of acyl group from phenolic oxygen to o- & p-Position of the nucleus with respect to hydroxyl group. Phenolic esters are useful derivatives for the identification of phenols. This rearrangement is preferred to direct acylation by Friedel craft acylation as the yields are excellent. It involves the formation of an acylium ion e.g. $O=C^+CH_3$ which

Then attacks



Below $66^\circ C$ the p-isomer predominates but above $160^\circ C$ The o-isomer is the main product