CHEM - 647

Organic synthesis



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DISCONNECTIONS OF β-HYDOXY ALCOHOLS

α,β-<u>UNSATURATED CARBONYL COMPOUNDS</u>

Aldol condensation



DISCONNECTIONS OF β-HYDOXY ALCOHOLS



DISCONNECTIONS OF

α,β-UNSATURATED CARBONYL COMPOUNDS

$$\stackrel{\mathsf{CHO}}{\Longrightarrow} \stackrel{\mathsf{FGI}}{\Longrightarrow} \stackrel{\mathsf{CHO}}{\Longrightarrow} \stackrel{\mathsf$$



DISCONNECTIONS OF

1,3-di Oxygenated Compounds

$$\xrightarrow{\text{FGI}} \xrightarrow{\text{OH}} \xrightarrow{\alpha, \beta - \text{unsaturated}} \xrightarrow{\text{CO}_2R} \xrightarrow{\text{Carbonyl}} \xrightarrow{\text{HOC}} \xrightarrow{\text{OH}} \xrightarrow{\text{CH}_3\text{CO}_2R}$$

$$\xrightarrow{1,3 \text{ dio}} + \text{ CH}_2\text{C}$$