



Topic 16 Exercise 1 – aldehydes and ketones

1. Name and draw the structures of the organic products obtained by the following reactions. If there is no reaction, state “no reaction”.
 - a) propanal with acidified potassium dichromate
 - b) propanal with NaBH_4
 - c) propanone with acidified potassium dichromate
 - d) propanone with NaBH_4
 - e) propanone with HCN
 - f) butanal with Fehling’s solution
 - g) methylpropanal with Tollen’s reagent
 - h) butanone with Fehling’s solution
 - i) butanone with HCN
2. Write equations and give the mechanism for the reaction of butanone with
 - a) NaBH_4
 - b) HCN
3. Suggest starting materials for the production of the following hydroxynitriles:
 - a) 2-hydroxybutanenitrile
 - b) 2-methyl, 2-hydroxybutanenitrile
 - c) 3-methyl, 2-hydroxybutanenitrile

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