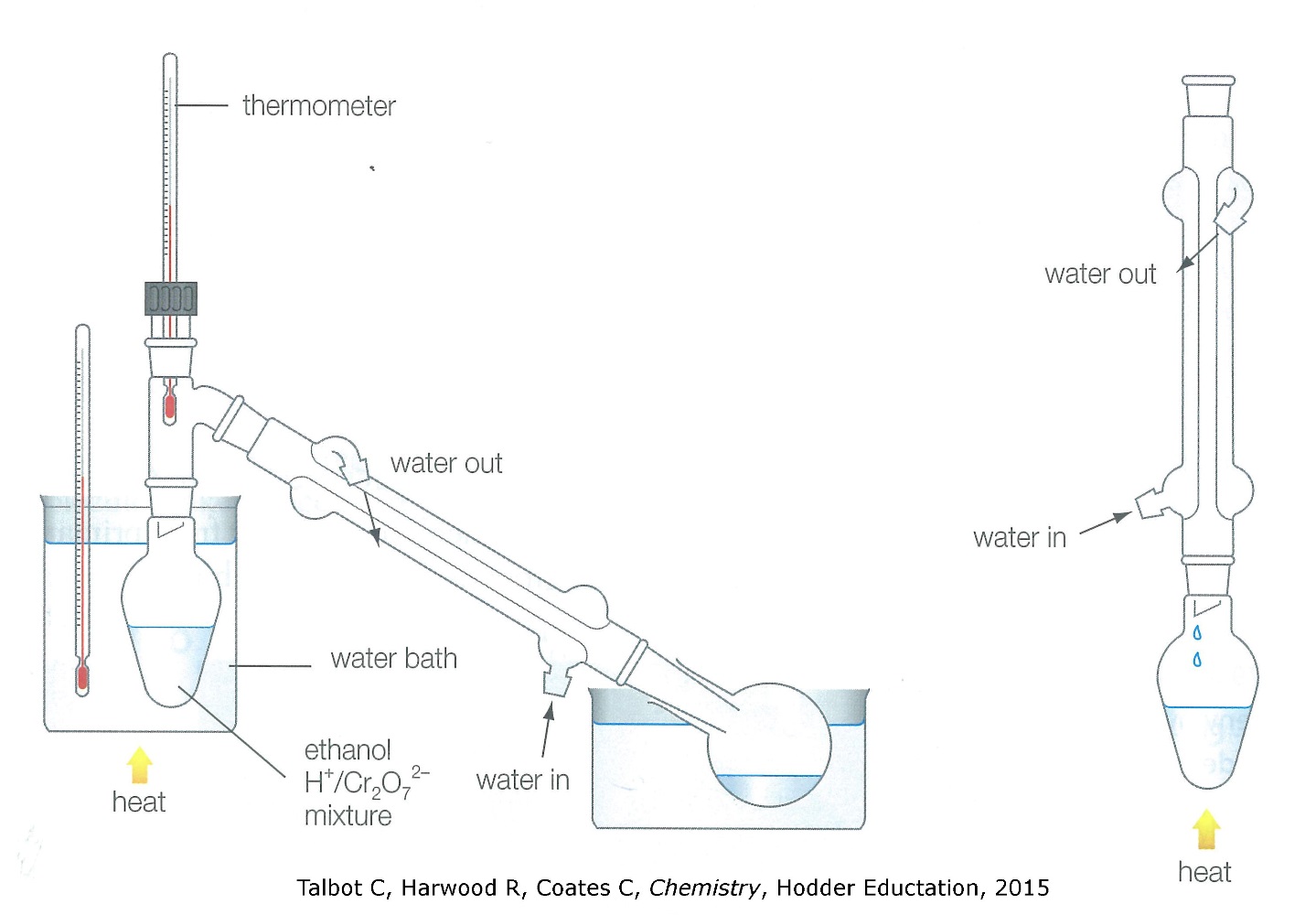
Making aldehydes, carboxylic acids and ketones



partial oxidation using distillation

ethanol (primary alcohol) forms aldehyde: ethanal (bp of 21°C)

total oxidation using reflux

ethanol (primary alcohol) forms carboxylic acid: ethanoic acid (bp of 120°C)

oxidation of secondary alcohol

propan-2-ol forms a ketone: propanone (bp of 56°C)

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| --- | --- |
| **distillation**   product is condensed and collected as soon as it forms   important in the case of forming an aldehyde to prevent further oxidation to a carboxylic acid | **reflux**   maintains the boiling point of the reactant, ensuring maximum rate of reaction   no loss of product as vapours condense and fall back into the pear shaped flask |