

Distillation – GCE A-level specification statements

Education in Chemistry

January 2018

rsc.li/EiC118-distillation

All specifications include the requirement for students to demonstrate distillation and heating under reflux, including setting up glassware using retort stand and clamps.

Specification	Specification statements
AQA (7404/7405)	<p>3.3.2.1 Fractional distillation of crude oil</p> <p>Petroleum is a mixture consisting mainly of alkane hydrocarbons that can be separated by fractional distillation.</p> <p>3.3.5.1 Alcohol production</p> <p>Ethanol produced industrially by fermentation is separated by fractional distillation and can then be used as a biofuel.</p> <p>Required practical 5: Distillation of a product from a reaction.</p>
Edexcel	<p>6B.10 understand that alkane fuels are obtained from the fractional distillation, cracking and reforming of crude oil</p> <p>6E.39 understand the following techniques used in the preparation and purification of a liquid organic compound: iii) distillation</p> <p>18C.22 understand the following techniques used in the preparation and purification of organic compounds: vi) distillation, including steam distillation</p>
OCR A (H432)	<p>4.2.3(a)(i) use of Quickfit apparatus for distillation and heating under reflux</p> <p>4.2.3(a)(ii) preparation and purification of an organic liquid including: redistillation</p> <p>6.2.5(a) the techniques and procedures used for the preparation and purification of organic solids involving use of a range of techniques (see also 4.2.3 a) including:</p> <p>(i) organic preparation: use of Quickfit apparatus; distillation and heating under reflux</p> <p>(ii) purification of an organic solid: filtration under reduced pressure; recrystallisation; measurement of melting points</p> <p>PAG5: Synthesis of an organic liquid - to include distillation</p>

OCR B Salters (H433)	<p>WM(d) the following reactions of alcohols and two-step syntheses involving these reactions and other organic reactions in the specification: (ii) oxidation to carbonyl compounds (aldehydes and ketones) and carboxylic acids with acidified dichromate(VI) solution, including the importance of the condition (reflux or distillation) under which it is done</p> <p>WM(f) techniques and procedures for preparing and purifying a liquid organic product including the use of a separating funnel and of Quickfit or reduced scale apparatus for distillation and heating under reflux</p> <p>PAG5: Synthesis of an organic liquid - to include distillation</p>
WJEC Eduqas	<p>C3.4(b) preparation of ethanol and other alcohols by fermentation followed by distillation, and issues relating to the use of biofuels</p> <p>C3.4(i) separation by distillation</p> <p>Specified practical work C3.4: Preparation of an ester and separation by distillation</p>