Distillation – GCE A-level specification statements

***Education in Chemistry***January 2018[rsc.li/EiC118-distillation](http://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.

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| **Specification** | **Specification statements** |
| AQA (7404/7405) | 3.3.2.1 Fractional distillation of crude oil  Petroleum is a mixture consisting mainly of alkane hydrocarbons that can be separated by fractional distillation.  3.3.5.1 Alcohol production  Ethanol produced industrially by fermentation is separated by fractional distillation and can then be used as a biofuel.  Required practical 5: Distillation of a product from a reaction. |
| Edexcel | 6B.10 understand that alkane fuels are obtained from the fractional distillation, cracking and reforming of crude oil  6E.39 understand the following techniques used in the preparation and purification of a liquid organic compound: iii) distillation  18C.22 understand the following techniques used in the preparation and purification of organic compounds: vi) distillation, including steam distillation |
| OCR A (H432) | 4.2.3(a)(i) use of Quickfit apparatus for distillation and heating under reflux  4.2.3(a)(ii) preparation and purification of an organic liquid including: redistillation  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:  (i) organic preparation: use of Quickfit apparatus; distillation and heating under reflux  (ii) purification of an organic solid: filtration under reduced pressure; recrystallisation; measurement of melting points  PAG5: Synthesis of an organic liquid - to include distillation |
| OCR B Salters (H433) | 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  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  PAG5: Synthesis of an organic liquid - to include distillation |
| WJEC Eduqas | C3.4(b) preparation of ethanol and other alcohols by fermentation followed by distillation, and issues relating to the use of biofuels  C3.4(i) separation by distillation  Specified practical work C3.4: Preparation of an ester and separation by distillation |