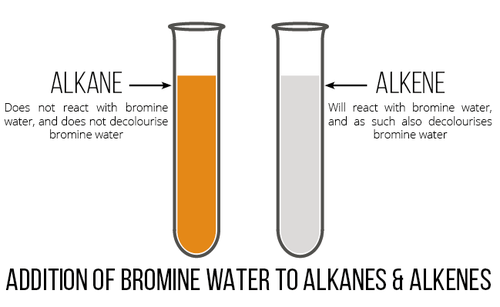
Bromine test (Level 2) examiners tips

A common laboratory procedure to distinguish between an alkane and alkene is to use bromine water, Br2 (aq)

|  |  |  |
| --- | --- | --- |
| **Name of substance** | C:\Users\michelem\AppData\Local\Packages\Microsoft.Office.Desktop_8wekyb3d8bbwe\AC\INetCache\Content.MSO\17664712.tmp  Ethane | Image result for ethene  Ethene |
| **Homologous series** | Alkanes | Alkenes |
| **Functional group** | Single bond between the carbon atoms | Double bond between the carbon atoms |



<https://socratic.org/questions/what-are-the-tests-for-alkanes>

|  |  |  |
| --- | --- | --- |
| **Reaction of bromine water with an alkane and an alkene** | | |
| **Name of alkane/alkene** | Ethane | Ethene |
| **Type of reaction** | Substitution | Addition |
| **Catalyst** | light is required | none required |
| **Speed of reaction** | approx. 10 minutes | immediate |
| **Number of products formed** | 2 | 1 |
| **Name of products** | bromoethane and hydrogen bromide | 1,2-dibromoethane |

Many exam questions regarding the bromine test for unsaturation ask you to compare and contrast.

First, use a double/bubble to write down your thoughts as you prepare your answer

To achieve with Excellence

When composing your compare/contrast (similarities/differences) answer, you MUST use linking words

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sentence starter** | **linking words** |  | **Sentence starter** | **linking words** |
| A similarity is….  Another similarity is… | similarly  as with  in the same way  likewise  equally |  | A difference is…  Another difference is… | whereas  alternatively  otherwise  conversely  however  on the other hand  although |

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