Year 12 Chemistry: Distinguish between 1

Describe a chemical test that would enable you to distinguish between the following pairs of chemicals. You need to describe what would be observed with each of the chemicals.

a) hydrochloric acid and nitric acid

Test _____

Observation with HCl _____

Observation with HNO_3 _____

b) propanal and propanone

Test _____

Observation with propanal _____

Observation with propanone _____

c) aqueous NaCl and aqueous NaI

Test _____

Observation with NaCl _____

Observation with NaI _____

d) propanoic acid and methyl ethanoate

Test _____

Observation with propanoic acid _____

Observation with methyl ethanoate _____

e) propene and propane

Test _____

Observation with propene _____

Observation with propane _____

f) silver metal and zinc metal

Test _____

Observation with silver _____

Observation with zinc _____

Year 12 Chemistry: Distinguish between 1 answers

Describe a chemical test that would enable you to distinguish between the following pairs of chemicals. You need to describe what would be observed with each of the chemicals.

g) hydrochloric acid and nitric acid

Test add aqueous $AgNO_3$

Observation with HCl a white precipitate will form when solutions combined

Observation with HNO_3 two colourless solutions combined and no visible reaction occurs

h) propanal and propanone

Test add acidified $KMnO_4(aq)$

Observation with propanal when the purple $KMnO_4$ is added the colour fades to pale pink

Observation with propanone when the purple $KMnO_4$ is added the purple colour remains

i) aqueous NaCl and aqueous NaI

Test add $Br_2(aq)$

Observation with NaCl orange solution added to colourless solution and orange colour remains

Observation with NaI orange solution added to colourless solution and orange colour fades and grey solid forms

j) propanoic acid and methyl ethanoate

Test add Mg(s) to both

Observation with propanoic acid colourless, odourless bubbles form

Observation with methyl ethanoate no visible change

k) propene and propane

Test add $Br_2(aq)$ to both colourless solutions

Observation with propene the orange colour of $Br_2(aq)$ fades

Observation with propane the orange colour of $Br_2(aq)$ remains

l) silver metal and zinc metal

Test add HCl(aq) to both

Observation with silver no visible change

Observation with zinc colourless, odourless bubbles form