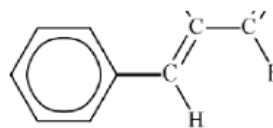


Chemical Equations

Question 1

- (h) How would you confirm the presence of the sulfite ion in aqueous solution?



Question 2

- (g) What reagents are needed to test a solution for the nitrate ion?

Question 3

- (d) Describe a test for the presence of chloride ion (Cl^-) in water. (6)

Question 4

- (f) Name the two reagents used in the brown ring test for the nitrate ion.

Question 5

- (j) How could the presence of sulfite ions in aqueous solution be detected?

Question 6

- (c) A student was given samples of the following salts:

sodium sulfate (Na_2SO_4)

sodium sulfite (Na_2SO_3)

potassium sulfate (K_2SO_4)

- (i) What test could be carried out to distinguish between the sodium salts and the potassium salt? (4)
What observation would you make in this test? (6)
- (ii) Describe the test which could be carried out to distinguish between the sulfate salts and the sulfite salt. (15)

Question 7

- (f) Complete and balance the equation for the chemical reaction that occurs when a piece of sodium is added to ethanol: $\text{C}_2\text{H}_5\text{OH} + \text{Na} \rightarrow$

Question 8

- (f) Complete and balance the equation for the chemical reaction that occurs when a piece of aluminium is placed in a solution of copper(II) ions: $\text{Cu}^{2+} + \text{Al} \rightarrow$