



55. Phosphorus has three allotropic forms — (i) white phosphorus (ii) red phosphorus and (iii) black phosphorus. Write the difference between white and red phosphorus on the basis of their structure and reactivity.

Solution:

1. White phosphorus

(i) It is soft waxy solid having garlic order

(ii) It is poisonous

(iii) Has low melting point and boiling point because P_4 molecules are held together by weak van der Waal forces of attraction

2. Red Phosphorus

(i) It is hard, crystalline, odourless solid

(ii) It is non-poisonous

(iii) It has a high melting point because of its polymeric structure.

56. Give an example to show the effect of concentration of nitric acid on the formation of oxidation product.

Solution:



57. PCl_5 reacts with finely divided silver on heating and a white silver salt is obtained, which dissolves on adding excess aqueous NH_3 solution. Write the reactions involved to explain what happens.

Solution:

PCl_5 reacts with silver to form white silver salt($AgCl$). Which then dissolves on adding excess aqueous NH_3 to form a soluble complex



58. Phosphorus forms a number of oxoacids. Out of these oxoacids phosphinic acid has strong

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