

Practical Organic Chemistry

Question1

When sodium fusion extract of an organic compound is boiled with iron (II)sulphate solution followed by addition of concentrated H_2SO_4 , gives prussian blue colour. This confirms the presence of the element

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Options:

A.

sulphur

B.

chlorine

C.

phosphorus

D.

nitrogen

Answer: D

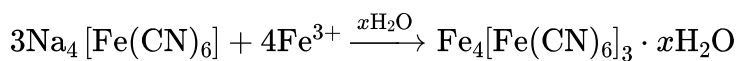
Solution:

First, when the sodium fusion extract reacts with iron(II) sulfate, a chemical reaction happens that forms a compound called sodium ferrocyanide.



Next, when you add concentrated H_2SO_4 , the iron(II) changes to iron(III). This iron(III) reacts with sodium ferrocyanide to make a blue colored compound called Prussian blue.

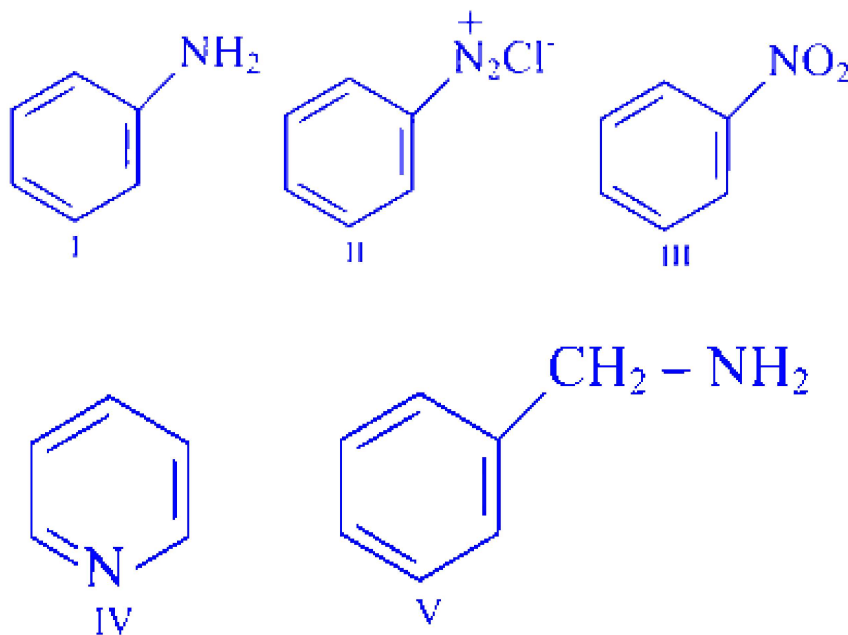




The blue color (Prussian blue) shows that nitrogen is present in the organic compound.

Question2

Which of the following compounds will be suitable for estimation of nitrogen by Kjeldahl's method?



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Options:

A.

I and V only

B.

I, II, III only

C.

II and V only

D.

III and IV only

Answer: A

Solution:

Kjeldahl's method can estimate nitrogen only in organic compounds where nitrogen is present in amino or amide forms and not in aromatic rings, azo groups, or nitro groups.

Compound I (aniline) and compound(V) (benzylamine) is suitable.

