

Lassaigne's test is used to detect the presence of elements: Nitrogen (N), Sulfur(S),Chlorine (Cl),Bromine(Br) and Iodine (I).This test involves following two steps:

I. preparation of sodium fusion extract (SFE).

II. detection of element using SFE

SUMMARY SHEET OF LASSAIGNE'S TEST		
Test	Observation	Inference
SFE + FeSO ₄ + FeCl ₃ + HCl	i) A prussian blue color is formed.	i) Nitrogen is confirmed.
	ii) Blood red coloration is observed.	ii) Both nitrogen and sulfur are confirmed.
i) SFE + Sodium nitroprusside	i) A violet coloration is observed.	Sulfur is confirmed.
ii) SFE + CH ₃ COOH + Pb(CH ₃ COO) ₂	ii) A black precipitate is formed.	
SFE + HNO ₃ + AgNO ₃	i) A white ppt. soluble in NH ₄ OH is formed.	i) Chlorine is confirmed.
	ii) A pale yellow ppt. partially soluble in NH ₄ OH is formed.	ii) Bromine is confirmed.
	iii) A yellow ppt. insoluble in NH ₄ OH is formed.	iii) Iodine is confirmed.

If you have:

a) Hydroxylamine Hydrochloride (NH₂OH*HCl) [Cl and N can be detected]

b) Nitromethane CH₃NO₂ [N can be detected,but*...]

c) propane nitrile C₂H₅CN [N can be detected]

d) ethaneamine C₂H₅NH₂ [N can be detected]

*But process for b is very slow, so it can't give Lassaigne's test.