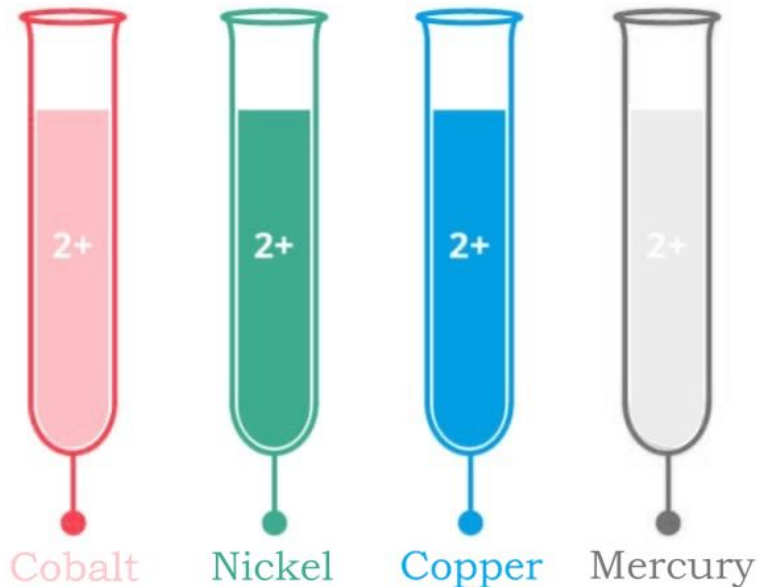


Group 6 Cations

Students: Julia Bub,
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Group 082001

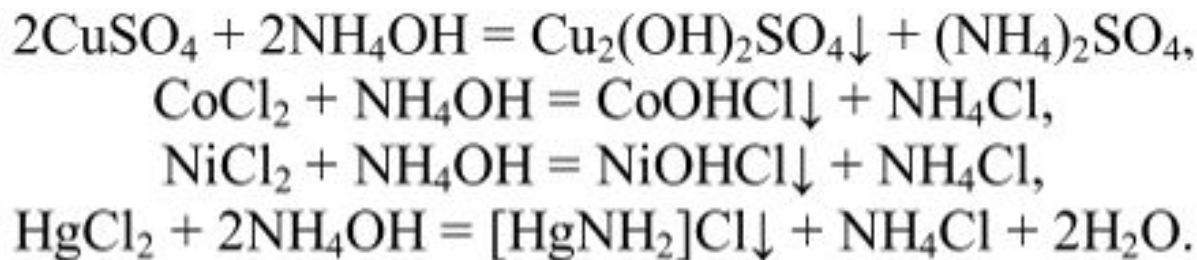
Cations

- Group 6 consists of copper 2+ **blue** cation, mercury 2+ **colourless** cation, cobalt 2+ **pink** cation and nickel 2+ **green** cation.

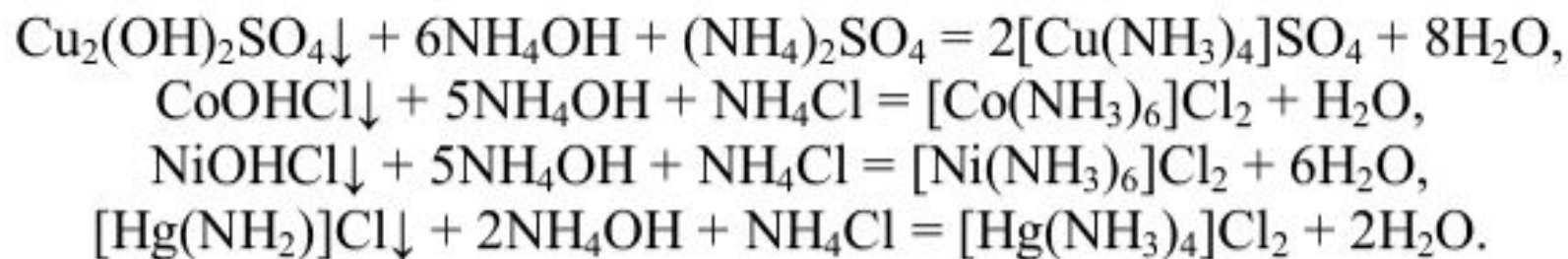


Common reagent

- The common reagent of this group is aqueous ammonia solution NH_4OH .
When ammonia solution is added, cations of this group form precipitates of **various** colors.



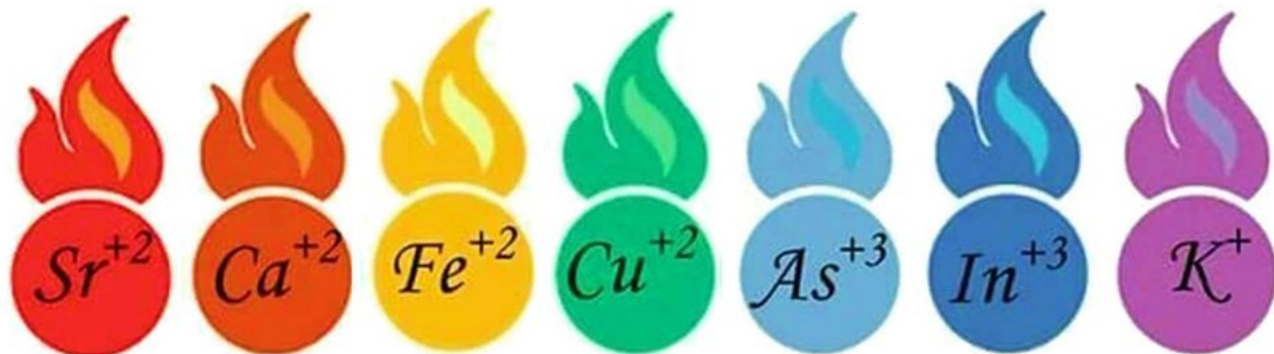
- When excess ammonia solution is added, these precipitates will dissolve into colorful solutions.



Determination

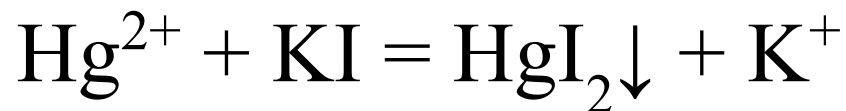
- **Copper 2+**
- We can use a flame test and see the blue-green flame.
- Also we can use the reaction with potassium ferrocyanide $K_4[Fe(CN)_6]$. This reaction yields to the formation of **brown-red** precipitate $Cu_2[Fe(CN)_6]$.

АаААааааАА! МОЕМУ СЫНУ В 8 (ВОСЬМОМ) КЛАССЕ ПРОПАГАНДИРУЮТ ЛГБТ! ВЫ ТОЛЬКО ВЗГЛЯНИТЕ ЧЕМУ ИХ УЧАТ!





- **Mercury 2+**
- We can use the reaction with potassium iodide KI. The brown-red precipitate of mercury iodide HgI_2 is formed.

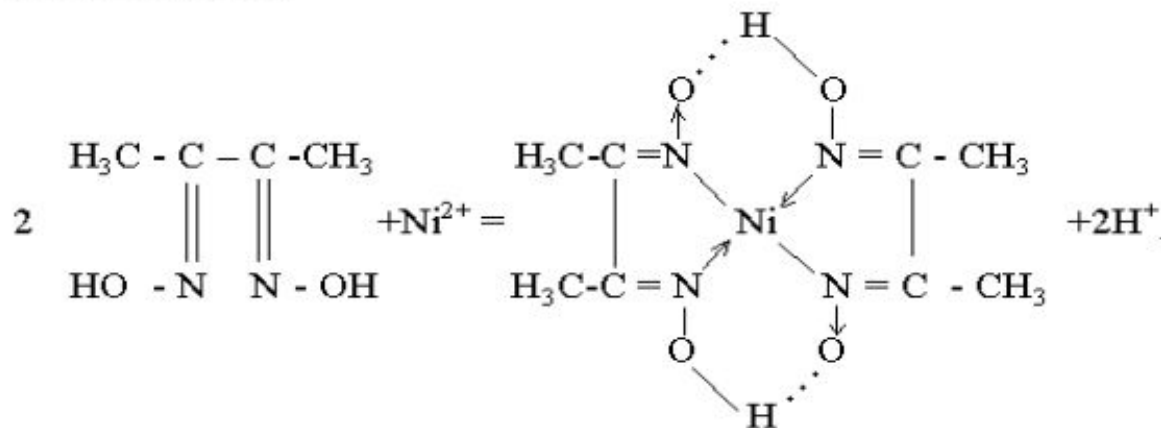


- **Cobalt 2+**
- We can use the reaction ammonium thiocyanate NH_4SCN . The solution turns to blue. For this reaction we should use an organic compound for extraction.





- **Nickel 2+**
- We can use the reaction with Dimethylglyoxime. The crimson precipitate is formed.



Application

- Compounds of Group 6 cations found a use in medicine and pharmacy. For example, mercury oxide is a part of some medicinal creams, mercury chloride and copper sulfate are used in antiseptics.



Thanks for your attention!

