**Disscution and solution for the three exp 3**

**Q1- What are DMG properties? And why it is used as a precipitating reagent?**

1. Selective reagent
2. Soluble in alcohol
3. Low organic acid
4. Have a little solubility in water and ionized to lose proton as in below equation

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It is used so far as a precipitating agent because it gives a large gravimetric reagent**.**

**Q2- What are Ni (DMG)2 specifications?**

1. Red color precipitate

2. Very low solubility in water

3. Can be drying at a temperature (110 - 1200 C)

4. Dissolves in diluted base solution as the following

$$Ni^{+2}+ 2C\_{4}H\_{8}O\_{2}N\_{2}+ 2NH\_{3 }\rightarrow (C\_{4}H\_{7}O\_{2}N\_{2})\_{2}Ni\_{\downright (red)}+2NH\_{4}^{+} $$

**Q3- Add dilute hydrochloric acid?**

To complete the sample dissolution.

**Q4- Why was a precipitate process of Ni(DMG)2 in the base medium?**

This is because the alcohol solution of precipitate agent (DMG) works to precipitate nickel only in the base medium by hydroxide ammonium. In the acid medium, the precipitating agent (DMG) acts on the precipitate of a group of ions except nickel, such as palladium

**Q5- What is the chemical composition of the Ni(DMG)2 precipitate?**

