Exercise

Ujian anion dan kation / *anion and cation test*

Tick at the ion that maybe present based on the given procedure then complete the table by naming the salts tested

Garam yang diuji Tested salt	Prosedur procedure	Pemerhatian Observation	Inferens Inference
1. Name of the salt is..	Add excess ammonia solution	Brown precipitate is insoluble in excess ammonia	Fe^{2+} Fe^{3+} Cu^{2+} Present
	Add dilute sulfuric acid followed by iron (II) sulphate solution and concentrated sulfuric acid is slowly dropped on the wall in the test tube.	Brown ring produced	CO_3^{2-} SO_4^{2-} NO_3^- Cl^- present
2. Name of the salt is..	Add dilute hydrochloric acid followed by barium chloride solution	White precipitate	CO_3^{2-} SO_4^{2-} NO_3^- Cl^- present
	Add sodium hydroxide solution until excess	White precipitate is soluble in excess sodium hydroxide	Zn^{2+} Ca2+ Al^{3+} Mg^{2+} Pb^{2+} present
	Add ammonia solution until excess	White precipitate soluble in excess ammonia solution	Zn^{2+} Ca^{2+} Al^{3+} Mg^{2+} Pb^{2+} present
3. Name of the salt is..	Add dilute sulfuric acid followed by iron (II) sulphate solution and concentrated sulfuric acid is slowly dropped on the wall in the test tube.	Brown ring produced	CO_3^{2-} SO_4^{2-} NO_3^- Cl^- Present

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	Add sodium hydroxide solution until excess	White precipitate is soluble in excess sodium hydroxide	Zn^{2+} Ca^{2+} Al^{3+} Mg^{2+} Pb^{2+} present
	Add ammonia solution until excess	White precipitate insoluble in excess ammonia solution	Zn^{2+} Ca^{2+} Al^{3+} Mg^{2+} Pb^{2+} present
	Add a few drop of lead (II) iodide solution	Yellow precipitate forms soluble when heated	Zn^{2+} Ca^{2+} Al^{3+} Mg^{2+} Pb^{2+} present
4. Name of the salt is..	Add sodium hydroxide solution until excess	White precipitate is soluble in excess sodium hydroxide	Zn^{2+} Ca^{2+} Al^{3+} Mg^{2+} Pb^{2+} present
	Add ammonia solution until excess	White precipitate insoluble in excess ammonia solution	Zn^{2+} Ca^{2+} Al^{3+} Mg^{2+} Pb^{2+} present
	Add a few drop of lead (II) iodide solution	No change	Zn^{2+} Ca^{2+} Al^{3+} Mg^{2+} Pb^{2+} present
	Add sulfuric acid	Effervescence occurs. The gas release turns the lime water cloudy.	CO_3^{2-} SO_4^{2-} NO_3^- Cl^-

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			present
5. Name of the salt is..	Add excess sodium hydroxide solution	blue precipitate is soluble in excess sodium hydroxide	Fe^{2+} Fe^{3+} Cu^{2+} Present
	Add dilute nitric acid acid followed by lead (II) nitrate solution	White precipitate produced	CO_3^{2-} SO_4^{2-} NO_3^- Cl^- present

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