|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Naming Acids  Binary:  Hydrogen + highly electronegative element   1. Begins with **hydro** 2. Add the **root of the other element** 3. Add **–ic** 4. + **acid**   HBr - Hydrobromic acid  HCl - Hydrochloric acid  HI - Hydroiodic acid  Oxyacids:  Hydrogen + oxygen + a third element   1. Begins with **Root** **of ion** (not H or O) (sometimes starts with **per-** or **hypo-**) 2. Add **–ic, or -ous** 3. + **acid**   Names change a little depending on how many oxygens the anion comes with…  Anion ends with **–ate** 🡪 change ending to **–ic**  Anion ends with **–ite** 🡪 change ending to **–ous**  Anion has **extra O than –ate** 🡪 start with **Per-**  Anion has **fewer O than –ite** 🡪 start with **Hypo-**  **ClO-** less O version 🡪 **Hypo**chlorous Acid  **ClO2-** -ic version 🡪 Chlor**ous** Acid  **ClO3-** -ate version 🡪 Chlor**ic** Acid  **ClO4-** more O version 🡪 **Per**chloric Acid | | | Naming Acids  Binary:  Hydrogen + highly electronegative element   1. Begins with **hydro** 2. Add the **root of the other element** 3. Add **–ic** 4. + **acid**   HBr - Hydrobromic acid  HCl - Hydrochloric acid  HI - Hydroiodic acid  Oxyacids:  Hydrogen + oxygen + a third element   1. Begins with **Root** **of ion** (not H or O) (sometimes starts with **per-** or **hypo-**) 2. Add **–ic, or -ous** 3. + **acid**   Names change a little depending on how many oxygens the anion comes with…  Anion ends with **–ate** 🡪 change ending to **–ic**  Anion ends with **–ite** 🡪 change ending to **–ous**  Anion has **extra O than –ate** 🡪 start with **Per-**  Anion has **fewer O than –ite** 🡪 start with **Hypo-**  **ClO-** less O version 🡪 **Hypo**chlorous Acid  **ClO2-** -ic version 🡪 Chlor**ous** Acid  **ClO3-** -ate version 🡪 Chlor**ic** Acid  **ClO4-** more O version 🡪 **Per**chloric Acid | | Naming Acids  Binary:  Hydrogen + highly electronegative element   1. Begins with **hydro** 2. Add the **root of the other element** 3. Add **–ic** 4. + **acid**   HBr - Hydrobromic acid  HCl - Hydrochloric acid  HI - Hydroiodic acid  Oxyacids:  Hydrogen + oxygen + a third element   1. Begins with **Root** **of ion** (not H or O) (sometimes starts with **per-** or **hypo-**) 2. Add **–ic, or -ous** 3. + **acid**   Names change a little depending on how many oxygens the anion comes with…  Anion ends with **–ate** 🡪 change ending to **–ic**  Anion ends with **–ite** 🡪 change ending to **–ous**  Anion has **extra O than –ate** 🡪 start with **Per-**  Anion has **fewer O than –ite** 🡪 start with **Hypo-**  **ClO-** less O version 🡪 **Hypo**chlorous Acid  **ClO2-** -ic version 🡪 Chlor**ous** Acid  **ClO3-** -ate version 🡪 Chlor**ic** Acid  **ClO4-** more O version 🡪 **Per**chloric Acid | |
| 7 Strong Acids | | | 7 Strong Acids | | 7 Strong Acids | |
| 1. HCl – Hydrochloric Acid 2. HBr – Hydrobromic Acid 3. HI – Hydriodic Acid | | 1. H2SO4 – Sulfuric Acid 2. HNO3 – Nitric Acid 3. HClO4 – Perchloric Acid 4. HClO3 – Chloric Acid | 1. HCl – Hydrochloric Acid 2. HBr – Hydrobromic Acid 3. HI – Hydriodic Acid | 1. H2SO4 – Sulfuric Acid 2. HNO3 – Nitric Acid 3. HClO4 – Perchloric Acid 4. HClO3 – Chloric Acid | 1. HCl – Hydrochloric Acid 2. HBr – Hydrobromic Acid 3. HI – Hydriodic Acid | 1. H2SO4 – Sulfuric Acid 2. HNO3 – Nitric Acid 3. HClO4 – Perchloric Acid 4. HClO3 – Chloric Acid |
| 8 Strong Bases | | | 8 Strong Bases | | 8 Strong Bases | |
| 1. LiOH – Lithium Hydroxide 2. NaOH – Sodium Hydroxide 3. KOH – Potassium Hydroxide 4. RbOH –Rubidium Hydroxide 5. CsOH – Cesium Hydroxide | 1. Ca(OH)2 – Calcium Hydroxide 2. Sr(OH)2 – Strontium Hydroxide 3. Ba(OH)2 – Barium Hydroxide | | 1. LiOH – Lithium Hydroxide 2. NaOH – Sodium Hydroxide 3. KOH – Potassium Hydroxide 4. RbOH –Rubidium Hydroxide 5. CsOH – Cesium Hydroxide | 1. Ca(OH)2 – Calcium Hydroxide 2. Sr(OH)2 – Strontium Hydroxide 3. Ba(OH)2 – Barium Hydroxide | 1. LiOH – Lithium Hydroxide 2. NaOH – Sodium Hydroxide 3. KOH – Potassium Hydroxide 4. RbOH –Rubidium Hydroxide 5. CsOH – Cesium Hydroxide | 1. Ca(OH)2 – Calcium Hydroxide 2. Sr(OH)2 – Strontium Hydroxide 3. Ba(OH)2 – Barium Hydroxide   N-47 |

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