



PETA KONSEP CONCEPT MAP

ASID, BES DAN GARAM ACID, BASE AND SALT

Tindak balas kimia
Chemical reactions

Asid kuat / Strong acid

- Kepekatan ion H^+ $\uparrow$
Concentration of H^+ ions $\uparrow$
- pH $\downarrow$

Asid lemah / Weak acid

- Kepekatan ion H^+ $\downarrow$
Concentration of H^+ ions $\downarrow$
- pH $\uparrow$

larut di dalam air
soluble in water

menghasilkan
ion H^+
produces H^+ ions

Asid
Acid

Garam
Salt

Peneutralan
Neutralisation

Bes
Base

larut di
dalam air
soluble in water

menghasilkan
ion OH^-
produces OH^- ions

Alkali
Alkali

Asid kuat / Strong acid

- Kepekatan ion OH^- $\uparrow$
Concentration of OH^- ions $\uparrow$
- pH $\uparrow$

Asid lemah / Weak acid

- Kepekatan ion OH^- $\downarrow$
Concentration of OH^- ions $\downarrow$
- pH $\downarrow$

Analisis
kualitatif
Qualitative
analyses

Garam terlarutkan
Soluble salt

Garam tak terlarutkan
Insoluble salt

Penyediaan / Preparation

Penyediaan / Preparation

Garam jenis
natrium, kalium,
ammonium
Sodium salt,
potassium salt and
ammonium salt

- Asid + alkali
Acid + alkali

Garam bukan jenis
natrium, kalium,
ammonium
Not sodium salt, potassium
salt and ammonium salt

- Asid + logam reaktif
Acid + reactive metal
- Asid + oksida logam
Acid + metal oxide
- Asid + karbonat logam
Acid + metal carbonate

Tindak balas penguraian ganda dua
Double decomposition reaction

- Pemerhatian ke atas sifat fizik garam
Observations on the physical properties of the salt
- Tindakan haba terhadap garam
Effect of heat on the salt
- Ujian kation dan anion
Cation and anion tests
- Ujian pengesahan kation
Confirmatory test for cation

Asid / Acid

- Asid + bes $\rightarrow$ garam + air / Acid + base $\rightarrow$ salt + water
- Asid + logam reaktif $\rightarrow$ garam + gas hidrogen
Acid + reactive metal $\rightarrow$ salt + hydrogen gas
- Asid + karbonat logam $\rightarrow$ garam + air + gas karbon dioksida
Acid + metal carbonate $\rightarrow$ salt + water + carbon dioxide gas

Alkali / Alkali

- Alkali + asid $\rightarrow$ garam + air / Alkali + acid $\rightarrow$ salt + water
- Alkali + garam ammonium $\rightarrow$ garam + air + gas ammonia
Alkali + ammonium salt $\rightarrow$ salt + water + ammonia gas
- Alkali + ion logam $\rightarrow$ hidroksida logam tak terlarutkan + kation daripada alkali
Alkali + metal ion $\rightarrow$ insoluble metal hydroxide + cation from the alkali