Halogen compounds

A-Level Chemistry · Vocabulary in context

Word	Example
halogenoalkane /ˈheɪlədʒnəʊlkeɪn/	Bromoethane is a **halogenoalkane**.
free-radical substitution /friː ˈrædɪkl ˌsʌbstɪˈtjuːʃn/	Methane reacts with chlorine by **free-radical substitution**.
electrophilic addition /ɪˌlektrəʊˈfɪlɪk əˈdɪʃn/	Ethene reacts with bromine by **electrophilic addition**.
alcohol /ˈælkəhɒl/	Ethanol is an **alcohol**.
primary /ˈpraɪməri/	In a **primary** alcohol, the –OH carbon is joined to one other carbon. –OH
secondary /ˈsekəndəri/	In a **secondary** alcohol, the –OH carbon is joined to two other carbons. –OH
tertiary /ˈtɜːʃəri/	In a **tertiary** alcohol, the –OH carbon is joined to three other carbons. –OH
nucleophilic substitution /ˌnjuːkliəˈfɪlɪk ˌsʌbstɪˈtjuːʃn/	A halogenoalkane reacts with hydroxide ions by **nucleophilic substitution**.
nucleophile /ˈnjuːklɪəfaɪl/	The hydroxide ion acts as a **nucleophile**.
nitrile /ˈnaɪtraɪl/	Ethanenitrile is a **nitrile**: it has a C≡N group. C≡N
amine /ˈæmaɪn/	Methylamine is an **amine**.
silver nitrate /ˈsɪlvə ˈnaɪtreɪt/	**Silver nitrate** gives a white precipitate with chloride ions.

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precipitate /prɪˈsɪpɪteɪt/	A white **precipitate** forms when silver nitrate meets chloride ions.
elimination /ɪˌlɪmɪˈneɪʃn/	In **elimination**, a small molecule is removed and a double bond forms.
alkene /ˈælkiːn/	Ethene is an **alkene**.
transition state /trænˈsɪʃn steɪt/	The **transition state** is at the top of the energy curve.
carbocation /ˌkɑːbəˈkeɪʃn/	A **carbocation** has a positive charge on a carbon atom.
curly arrow /ˈkɜːli ˈærəʊ/	A **curly arrow** shows where a pair of electrons moves.
lone pair /ləʊn peə/	Water has two **lone pair**s of electrons on its oxygen atom.
dipole /ˈdaɪpəʊl/	HCl has a **dipole**: one end is slightly positive, the other slightly negative. HCl
rate-determining step /reɪt dɪˈtɜːmɪnɪŋ step/	The slowest step is the **rate-determining step**.
intermediate /ˌɪntəˈmiːdɪət/	An **intermediate** forms in one step and is used up in the next.
inductive effect /ɪnˈdʌktɪv ɪˈfekt/	Alkyl groups push electrons towards a carbon: the **inductive effect**.
bond energy /bɒnd ˈenədʒi/	The C–H **bond energy** is about 413 kJ/mol. C–H 413 kJ/mol
reactivity /riːækˈtɪvɪti/	Potassium has a higher **reactivity** than sodium.