

Review: Naming Ions

Metals (cations)

groups 1, 2, Al

Metal Name + Ion

trans. metals 3-12 + In, Tl, Sn, Pb

Metal Name (charge) + Ion

Examples

Ca: Calcium (neutral)

Ca^{2+} : Calcium Ion (not a trans. metal)

Ti^{4+} : Titanium (neutral)

Ti^{4+} : Titanium (IV) Ion
[+4]



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Review: Naming Ions

Non-Metals (anions)

groups 13-17 (right of zig-zag)

Non-Metal (-ide) Ion

-ine $\rightarrow$ -ide -ogen $\rightarrow$ -ide

-on $\rightarrow$ -ide -ur $\rightarrow$ -ide

(See table for ion spelling)

Examples

F (-ine $\rightarrow$ -ide)

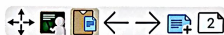
F: Fluorine (neutral)

F^{-} : Fluoride Ion (chart)

P (-orous $\rightarrow$ -ide)

P: Phosphorus (neutral)

P^{3-} : Phosphide Ion (chart)



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Naming Ionic Compounds

Metal (cation) + Non-Metal (anion)

Form: Cation Name ~~ion~~ + Anion Name ~~ion~~

Example

Metal: Sodium Ion (Na^+)

Non-Metal: Chloride Ion (Cl^-)

Ionic Compound

Sodium ~~ion~~ Chloride ~~ion~~

Sodium Chloride (NaCl)

Naming Ionic Compounds

Metal: Ca: Calcium Ion

Non-Metal: N: Nitride Ion

Ionic Compound Name: Ca_3N_2

Calcium ~~ion~~ + Nitride ~~ion~~

Calcium Nitride

Metal: Pd^{2+} : Palladium (II) Ion

Non-Metal: F: Fluoride Ion

Ionic Compound Name: PdF_2

Palladium (II) ~~ion~~ + Fluoride ~~ion~~

Palladium (II) Fluoride