

Main Ions Year 9

Group 6

CrO₄²⁻: chromate
Cr₂O₇²⁻: dichromate

Group 7

MnO₄²⁻: manganate
MnO₄⁻: permanganate

Group 13

NH₃ ammonia
CH₄ methane
B₂H₆ borane

Group 14

CO₃²⁻: carbonate
CN⁻: cyanide

Group 15

NO₂⁻: nitrite
NO₃⁻: nitrate

PO₄³⁻: (ortho) phosphate

AsO₄³⁻: (ortho) arsenate

Group 1

H⁻: hydride

Group 16

O²⁻: oxide
OH⁻: hydroxide
S²⁻: sulfide
SO₃²⁻: sulfite
SO₄²⁻: sulfate

Group 17

F⁻: fluoride
Cl⁻: chloride
ClO⁻: hypochlorite
ClO₂⁻: chlorite
ClO₃⁻: chlorate
ClO₄⁻: perchlorate
Br⁻: bromide
BrO⁻: hypobromite
BrO₂⁻: bromite
BrO₃⁻: bromate
BrO₄⁻: perbromate
I⁻: iodide
IO⁻: hypoiodite
IO₃⁻: iodate
IO₄⁻: periodate

The more common oxidation states

H: ±1	<u>Group 1:</u>	<u>Group 2:</u>	<u>Group 13</u>	<u>Group 14</u>	<u>Group 15</u>	<u>Group 16</u>	<u>Group 17</u>
NH ₄ ⁺ : ammonium	+1	+2	B, Al: +3 Ga, In, Tl: +1, +3	C, Si: +2, ±4 Ge, Sn, Pb: +2, +4	N: -3 to +5 P, As, Sb, Bi: ±3, +5	O: -2 S, Se, Te, Po: -2, +4, +6	F: -1 Cl, Br, I, At: ±1, +3, +5, +7
<u>Group 3</u>	<u>Group 4</u>	<u>Group 5</u>	<u>Group 6</u>	<u>Group 7</u>	<u>Group 8-10</u>	<u>Group 11</u>	<u>Group 12</u>
Sc } Y } +3 La }	Ti } Zr } +2 Hf } to +4	V } Nb } +2 Ta } to +5	Cr } Mo } +2 W } to +6	Mn } Tc } +2 Re } to +7	Fe, Co, Ni: +2, +3 Pd, Pt: +2, +4	Cu: +1, +2 Ag: +1 Au: +1, +3	Zn, Cd: +2 (Hg)