

### A table of systematic mineralogy IV: numbers of minerals

Minerals consisting of uncharged atoms (i.e., in elemental state)	Minerals consisting of cations bonded to single anions (no radical groups or complex ions)	Minerals consisting of cations bonded to negatively-charged radical groups (i.e., to complex ions like CO <sub>3</sub> <sup>2-</sup> or AsS <sub>3</sub> <sup>2-</sup> )	
	<p>Fluorides (32) Fluorite (CaF<sub>2</sub>)</p> <p>Halides ("Group VII -ides") (and thus minerals with 1- anions)</p> <p>Chlorides (75) Halite (NaCl)</p> <p>Bromides (4) Bromargyrite (AgBr)</p> <p>Iodides (3) Iodargyrite (AgI)</p>	<p>Fluosalts: (6)</p> <p>Fluoborates Ferrucite (NaBF<sub>4</sub>)</p> <p>Fluosilicates Hieratite (K<sub>2</sub>SiF<sub>6</sub>)</p>	Negative charge in mineral comes from halide anions
<p>Native elements</p> <p>Sulfur (S) Diamond (C) Copper (Cu)</p> <p>(90)</p> <p>Only 31 elements occur as native minerals. The number above includes polymorphs (e.g., diamond, graphite, chaoite, and lonsdaleite) and naturally occurring alloys.</p>	<p>Oxides (255) Hematite (Fe<sub>2</sub>O<sub>3</sub>)</p> <p>"Group VI -ides" (and thus minerals with 2- anions)</p> <p>Sulfides (138) Galena (PbS)</p> <p>Selenides (37) Achavalite (FeSe)</p> <p>Tellurides (34) Altaite (PbTe)</p>	<p>Oxysalts: (2700)</p> <p>Sulfates Tungstates</p> <p>Sulfarsenates Sulfogermanates Sulfantimonates Sulfostannates</p> <p>Sulfovanadates Sulfarsenites Sulfantimonites Sulfobismuthites</p> <p>Seleniosalts: (2) Selenioantimonates Selenobismuthites</p> <p>Telluriosalts: (1) Telluribismuthites</p> <p>Calcite (CaCO<sub>3</sub>)</p> <p>Pyrrargyrite (Ag<sub>3</sub>SbS<sub>3</sub>)</p> <p>Permingeatite (Cu<sub>3</sub>SbSe<sub>4</sub>)</p> <p>Volynskite (AgBiTe<sub>2</sub>)</p>	Negative charge in mineral comes from anions of Group VI elements
	<p>"Group V -ides" (and thus minerals with 3- anions)</p> <p>Nitrides (4) Osbornite (TiN)</p> <p>Phosphides (3) Barringerite (Fe,Ni)<sub>2</sub>P</p> <p>Arsenides (21) Löllingite (FeAs<sub>2</sub>)</p> <p>Antimonides &amp; Bismuthides (6) Sobolevskite (PdBi)</p> <p>"Group IV -ides" (and thus minerals with 4- anions)</p> <p>Carbides (5) Moissanite (SiC)</p> <p>Silicides (4) Gupéite (Fe<sub>3</sub>Si)</p>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>(37) — Number of minerals known in each category The number shown for oxides does not include minerals that are solely hydroxides.</p> </div> <p>The numbers shown here can be taken at face value as an indication that there are more oxysalt and oxide minerals than any other kinds. That would not be surprising, given that oxygen is the most abundant element in Earth's crust. Alternately, the numbers shown here can be taken to reflect the greatest human access to oxidizing environments at Earth's surface, and our inability to sample the reducing environments in Earth's deep interior to any significant extent.</p>	Negative charge in mineral comes from anions of Group IV and V elements

As of 2004, a total of about 4100 minerals had been formally recognized by the International Mineralogical Association. For the list, see Mandarino, J.A., and Back, M.E., 2004, *Fleischer's Glossary of Mineral Names*: Tuscon, The Mineralogical Record Inc., 309 p.