

HF

Binary Fluorine Compounds

[He]

This table shows compounds of the element fluorine (F) with other elements:

— Radicals are not shown

— The table is not necessarily complete: Please report missing entries and better references to the given email address

— Compounds are arranged by the oxidation state of the non-fluorine element, or by stoichiometry.

— Each compound is linked to its English Wikipedia page, or to another language Wikipedia page, or to a paper (in that order of preference).

— Not all compounds are equally stable; this table does not show which compounds are more stable.

— Many compounds have multiple phases; only the most stable are shown at different temperatures

— Many ionic and polymeric compounds have a molecular phase at high temperatures or low pressures; these are not indicated

Type of compound at standard conditions

Molecular with single non-fluorine atom (monomeric)

Molecules with multiple non-fluorine atoms (oligomeric)

Molecular with in

Polymeric (1D/2D)
Ionic or polymeric (3D)

X Compounds in italics

• Compounds in italics are not
Halogenated hydrocarbons

Unknown or unclear s

X Predicted or contested

Fluorine (for reference)

[X] Nalidixic acid (3-quinolone)

[X] No binary compound with fluorine known

Bonus material: binary fluorine minerals

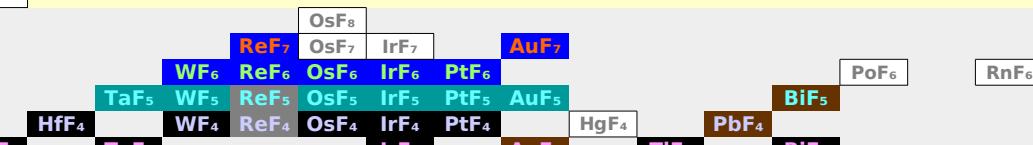
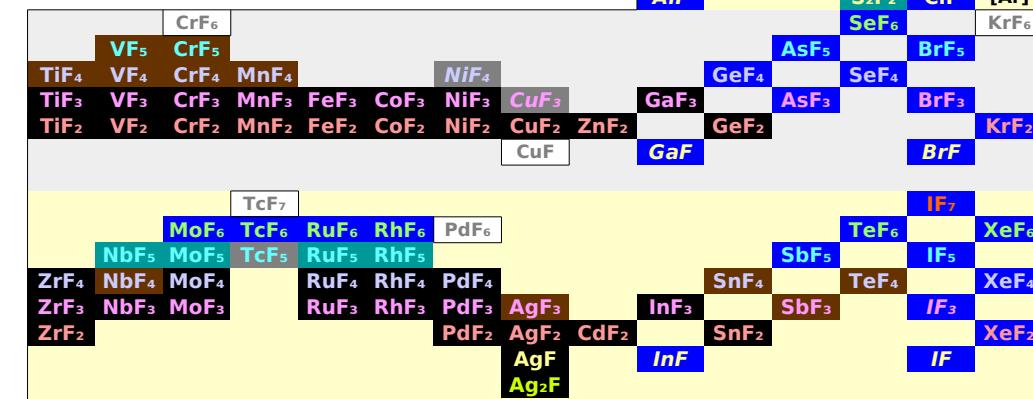
LiF					
Griceite					
NaF	MgF₂	AlF₃			
Villiaumite	Sellaite	Oskarssonite			
KF	CaF₂				
Carrobiite	Fluorite				
	SrF₂	YF₃			
	Strontiofluorite	Waimirite-(Y)			
	BaF₂	LaF₃	CeF₃	PbF₂	BiF₃
	Frankidicksonite	Fluocerite-(La)	Fluocerite-(Ce)	Fluorocromite	Gananite

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FN₃ is the only compound named “fluorine X” rather than “X fluoride”, **AuF₇** is the addition complex **AuF₅·F₂**, **PdF₃** is a mixed-valence compound of **Pd^{II}** and **Pd^{IV}**. Other mixed-valence compounds include e.g. **U₂F₉**, **U₄F₁₇**, **F₄S₃**, **Fe₂F₅** (not shown).