Thallium(I) fluoride

	Names						
Preferred IUPAC name							
Thallium(I) fluoride ^[source?]							
Other names							
Thallium monofluoride [source?]							
Thallous fluoride ^[source?]							
	Identifiers						
CAS Number	7789-27-7 check						
3D model (<u>JSmol</u>)	Interactive image						
ChemSpider	56426 [⊠]						
ECHA InfoCard	100.029.231						
EC Number	232-154-1						
PubChem CID	62675						
RTECS number	XG4900000						
CompTox Dashboard (EPA)	DTXSID701027537 Edit this at W						
SMILES							
F[T1]							
	Properties						
Chemical formula	TlF ^{2•}						
Molar mass	223.3817 g/mol						
Appearance	White crystals						
Density	8.36 g cm^{-3}						
Melting point	327 °C (621 °F; 600 K)						
Boiling point	655 °C (1,211 °F; 928 K) (decom						
Solubility in water	78.6 g/100 mL (at 15 °C) ^[1]						
Solubility	slightly soluble in ethanol						
Magnetic susceptibility (χ)	$-44.4 \cdot 10^{-6} \text{ cm}^3/\text{mol}$						
	Structure						
Crystal structure	Orthorhombic, oP8						
Space group	Fmmm, No. 28						
Hazards							
EU classification	Very Toxic T+ Dangerous for the						
R-phrases	R26/28, R33, R51/53						
S-phrases	S13, S28, S45, S61 ^[2]						
	Related compounds						
Other <u>anions</u>	{{{value}}}						

Other cations

{{{value}}}}

Except where otherwise noted, data are given for materials in their standard state (at 2 verify (what is check⊠?)

Infobox references

Thallium(I) fluoride, also known as **thallous fluoride**, is a <u>chemical compound</u>. Its chemical formula is TlF. It has <u>thallium</u> and <u>fluoride ions</u>. The thallium is in its +1 oxidation state.

Properties

[change | change source]

Thallium(I) fluoride is a white solid. It dissolves easily in water. It also dissolves in <u>ethanol</u>. It absorbs a little water in wet air.

Preparation

[change | change source]

It is made by reacting <u>thallium(I)</u> oxide or <u>thallium(I)</u> carbonate with <u>hydrofluoric acid</u>.

Related pages

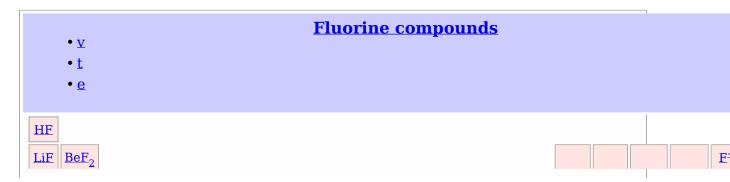
[change | change source]

- Thallium(III) oxide
- Thallium(I) chloride

References

[change | change source]

- 1. ↑ Perry, Dale L.; Phillips, Sidney L. (1995), <u>Handbook of Inorganic</u> <u>Compounds</u>, CRC Press, p. 407, <u>ISBN</u> <u>0-8493-8671-3</u>, retrieved 2008-06 -17
- 2. <u>↑ "399833 Thallium(I) fluoride 99%"</u>. Sigma-Aldrich. Retrieved 2008-06-17.



													$\begin{array}{c} \text{BF} \\ \text{BF}_3 \\ \text{B}_2\text{F}_4 \end{array}$	$\frac{CF_4}{C_xF_y}$	NF ₃ N ₂ F ₄	$\begin{array}{c} \text{OF} \\ \text{OF}_2 \\ \text{O}_2 \text{F}_2 \\ \text{O}_2 \text{F} \end{array}$	
NaF	MgF ₂												AlF AlF ₃	SiF ₄	P ₂ F ₄ PF ₃ PF ₅	$\begin{array}{c} {\rm S_2F_2} \\ {\rm SF_2} \\ {\rm S_2F_4} \\ {\rm SF_4} \\ {\rm S_2F_{10}} \\ {\rm SF_6} \end{array}$	Cl Cli
KF	CaF ₂		ScF ₃	TiF ₃	VF ₂ VF ₃ VF ₄ VF ₅	4	MnF ₂ MnF ₃ MnF ₄	FeF.	CoF ₂	NiF ₂ NiF ₃	CuF CuF ₂	ZnF ₂	GaF ₃	GeF_4	AsF ₃ AsF ₅	SeF ₄ SeF ₆	Br Brl
RbF	SrF ₂		YF ₃	ZrF ₄	NbF		TcF ₆	$\begin{array}{c} \mathrm{RuF}_3 \\ \mathrm{RuF}_4 \\ \mathrm{RuF}_5 \\ \mathrm{RuF}_6 \end{array}$	RhF ₃ RhF ₅ RhF ₆	$\begin{array}{c} \operatorname{PdF}_2 \\ \operatorname{Pd[PdF}_6 \\ \operatorname{PdF}_4 \\ \operatorname{PdF}_6 \end{array}$	AgF AgF ₂ AgF ₃ Ag ₂ F	CdF ₂	InF ₃		SbF ₃ SbF ₅	$\begin{array}{c} \text{TeF}_4 \\ \text{TeF}_6 \end{array}$	IF IF IF
CsF	BaF ₂	*	LuF ₃	HfF ₄	TaF ₅	WF ₄ WF ₆	ReF ₆ ReF ₇	$\begin{array}{c} \text{OsF}_4 \\ \text{OsF}_5 \\ \text{OsF}_6 \\ \text{OsF}_7 \\ \text{OsF}_8 \end{array}$	IrE ₃ IrE ₅ IrE ₆	$\begin{array}{c} \text{PtF}_2\\ \text{Pt[PtF}_6]\\ \text{PtF}_4\\ \text{PtF}_5\\ \text{PtF}_6 \end{array}$	$\begin{array}{c} \text{AuF} \\ \text{AuF}_3 \\ \text{Au}_2\text{E}_{10} \\ \text{AuF}_5\text{:}\text{F}_2 \end{array}$	$\begin{array}{c} \operatorname{HgF}_2 \\ \operatorname{Hg}_2 \operatorname{F}_2 \\ \operatorname{HgF}_4 \end{array}$	TIF TIF ₃	PbF ₂ PbF ₄	BiF ₃ BiF ₅	PoF ₄ PoF ₆	A
						0											
Fr	RaF ₂	**	Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Lv	T
Fr	RaF ₂	↓	Lr	Rf	Db	Sg					Rg	Cn	Nh	Fl	Mc	Lv	T
Fr	RaF ₂	1		0.5							Rg TbF ₃ TbF ₄	DyF ₃		ErF	Mc TmF ₂ TmF ₃	YbF ₂ YbF ₃	T:
Fr	RaF ₂	*		CeF ₃	PrF ₃ PrF ₄	NdF ₃ UF ₃ UF ₄ UF ₅		$\begin{array}{c} \operatorname{SmF}_2 \\ \operatorname{SmF}_3 \\ \operatorname{PuF}_3 \\ \operatorname{PuF}_4 \\ \operatorname{PuF}_5 \end{array}$	EuF ₂ EuF ₃ AmF ₃	GdF ₃	TbF ₃			ErF	TmF ₂	YbF ₂	Ts

	• KPF ₆ • KSbF ₆ • LiPF ₆ • NaPF ₆ • NaSbF ₆
AlF ₆ compounds	• Cs ₂ AlF ₅ • K ₃ AlF ₆ • Na ₃ AlF ₆
chlorides, bromides, iodides	• BaClF • CFN • ClFO ₂
SiF ₆ ²⁻ , GeF ₆ ²⁻ compounds	• $BaSiF_6$ • $BaGeF_6$ • $(NH_4)_2SiF_6$ • $Na_2[SiF_6]$ • $K_2[SiF_6]$
Oxyfluorides	• BrO_3 • BrO_2F • BrO_3F • $LaOF$ • $ThOF_2$ • VOF_3 • TcO_3F • WOF_4 • YOF • $ClOF_3$ • ClO_2F_3
Organofluorides	• CBrF ₃ • CBr ₂ F ₂ • CBr ₃ F • CClF ₃ • CCl ₂ F ₂

	$\begin{array}{l} \cdot \text{CF}_2\text{O} \\ \cdot \text{CF}_3\text{I} \\ \cdot \text{CHF}_3 \\ \cdot \text{CH}_2\text{F}_2 \\ \cdot \text{CH}_3\text{F} \\ \cdot \text{C}_2\text{Cl}_3\text{F}_3 \\ \cdot \text{C}_2\text{H}_3\text{F} \\ \cdot \text{C}_6\text{H}_5\text{F} \\ \cdot \text{C}_7\text{H}_5\text{F}_3 \\ \cdot \text{C}_{15}\text{F}_{33}\text{N} \\ \cdot \text{C}_3\text{H}_5\text{F} \\ \cdot \text{C}_6\text{H}_{11}\text{F} \\ \end{array}$	
with transition metal, lanthanide, actinide, ammonium	$\begin{array}{l} \text{VOF}_3\\ \text{CrOF}_4\\ \text{CrF}_2\text{O}_2\\ \text{NH}_4\text{F}\\ \text{Na}_2\text{TiF}_6\\ \text{Na}_2\text{ZrF}_6\\ \text{K}_2\text{NbF}_7\\ \text{K}_2\text{TaF}_7\\ \text{UO}_2\text{F}_2\\ \end{array}$	
nitric acids '	FNO FNO ₂ FNO ₃	
bifluorides (· KHF ₂ · NaHF ₂ · NH ₄ HF ₂	
thionyl, phosphoryl, and iodosyl	• F ₂ OS • F ₃ OP • PSF ₃ • IOF ₃ • IO ₃ F • IOF ₅ • IO ₂ F	

• IO₂E₃

Chemical formulas

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