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Strontium tetrafluoroborate. Erratum

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In the paper by Bunič, Tavčar, Goreshnik & Žemva [*Acta Cryst*. (2007), C**63**, i75–i76], the structure reported as $Sr(BF_4)_2$ is actually that of $Cd(BF_4)_2$. The correct structure of $Sr(BF_4)_2$ is now reported.

Comment

This erratum is to correct the report of the crystal structure of strontium tetrafluoroborate (Bunič *et al.*, 2007). The investigated compound was $Cd(BF_4)_2$ and not the reported $Sr(BF_4)_2$ because of experimental error. We report here the correct structure of strontium tetrafluoroborate, which appears to be isomorphous with the previously published structures of $Ca(BF_4)_2$ (Jordan *et al.*, 1975) and $Cd(BF_4)_2$ (Tavčar & Žemva, 2005). In the $Sr(BF_4)_2$ structure, the metal atom possesses a coordination number of eight with a square-antiprismatic coordination polyhedron. The Sr—F distances lie in the narrow range 2.490 (4)–2.538 (4) Å, compared with Ca—F distances in the range 2.330 (2)–2.401 (2) Å in $Ca(BF_4)_2$ and Cd—F distances in the range 2.296 (2)–2.381 (3) Å in $Cd(BF_4)_2$. The Sr metal center is bonded to eight BF_4^- units. In turn, each anion is connected to four Sr atoms. All four F atoms in each anion act as μ_2-bridges between B and Sr atoms, resulting in similar B—F bond lengths of 1.376 (7)–1.402 (7) Å.

Experimental

Routine crystallization of strontium tetrafluoroborate from different solvents usually gives crystals of various solvates. However, crystals of the anhydrous salt were grown by dissolving $Sr(BF_4)_2{\cdot}2H_2O$, prepared by the reaction between $SrCO_3$ (Aldrich, 99.99%) and excess aqueous HF (Aldrich, 40%), in acetone and further very slow crystallization.

Crystal data

$Sr(BF_4)_2$	V = 1235.0 (10) Å^3
M_r = 261.24	Z = 8
Orthorhombic, *Pbca*	Mo $K\alpha$ radiation
a = 9.602 (5) Å	μ = 8.83 mm^{-1}
b = 9.259 (5) Å	T = 296 K
c = 13.890 (6) Å	0.1 × 0.1 × 0.08 mm

Data collection

Rigaku Mercury CCD (2×2 bin mode) diffractometer	9319 measured reflections
	1534 independent reflections
Absorption correction: multi-scan (Blessing, 1995)	1348 reflections with $I > 2\sigma(I)$
T_{min} = 0.427, T_{max} = 0.504	R_{int} = 0.055

Refinement

$R[F^2 > 2\sigma(F^2)]$ = 0.059	101 parameters
$wR(F^2)$ = 0.111	$\Delta\rho_{max}$ = 1.49 e Å^{-3}
S = 1.34	$\Delta\rho_{min}$ = −0.76 e Å^{-3}
1534 reflections	

Data collection: *CrystalClear* (Rigaku, 1999); cell refinement: *CrystalClear*; data reduction: *CrystalClear*; program(s) used to solve structure: *SIR92* (Altomare *et al.*, 1993) and *TEXSAN* (Molecular Structure Corporation, 1999); program(s) used to refine structure: *SHELXL97* (Sheldrick, 2008); software used to prepare material for publication: *WinGX* (Version 1.70; Farrugia, 1999) and *enCIFer* (Version 1.2; Allen *et al.*, 2004).

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Supplementary data for this paper are available from the IUCr electronic archives (Reference: LN3136). Services for accessing these data are described at the back of the journal.

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