Magnetic characteristics of tetrabutylammonium tetrahalogenoferrates(III): X-ray crystal structure of tetrabutylammonium tetrabromoferrate(III).

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Streszczenie

The crystal and molecular structure of tetrabutylam-monium tetrabromoferrate(III) was determined. The iron cation issurrounded by four bromide anions, and it adopts a slightly dis-torted tetrahedral coordination with two angles larger than tetra-hedral, one equal to tetrahedral and one smaller than tetrahedral.In the structure there are no hydrogen bonds nor any unusual shortintermolecular interactions. The compound is isostructural with it [FeBr4nCln](n0, 1, 3, 4) analogues. Magnetic measurementsof the powdered samples of [(C4H9)4N][FeBr4nCln]gavenegativevalues of the Weiss constants that suggest antiferromagnetic inter-actions transmitted within the crystal lattice.

Słowa kluczowe

Tetrahalogenoferrates(III), Crystal structure, Magneticmeasurements, EPR

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