

Tetrachloroferrate(III) complexes of some organic diammonium cations: structures and magnetic properties.

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Streszczenie

With aqueous acidic iron(III) chloride, the three diamines ethylenediamine (en), tetramethylethylenediamine (tmeda) and 4:4-tetramethyldiaminodiphenylmethane (ddmp) yield the aqua-pentachloroferrate(III) and a pair of $[\text{FeCl}_4]\text{Cl}$ double salts, respectively. Their structures indicate that $\text{NH}\cdots\text{Cl}$ hydrogen bonding is present, but the $\text{Fe}\cdots\text{Fe}$ distances are all quite long. The magnetic data show that, while all the materials display antiferro-magnetic coupling on cooling, in none of the cases was any transition observed above 1.8 K.

Słowa kluczowe

Iron, Aquapentachloroferrate(III), Ethylenediammon-ium salt, Tetrachloroferrate(III) double salts, Tetramethylethylenediammonium, 4:4-Tetramethyldiammoniumdiphenylmethane, Crystal structures, Magnetic properties

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