

## Di- $\mu$ -chloro-tetrachlorobis(diethyl *o*-phthalate)ditanium(III), a new intermediate for the synthesis of titanium(III) compounds: crystal structure and properties.

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Di- $\mu$ -chloro-tetrachlorobis(diethyl *o*-phthalate)ditanium(III) tetra(dichloromethane) was obtained by direct reaction of  $\text{TiCl}_4$ , diethyl *o*-phthalate and metallic aluminum in  $\text{CH}_2\text{Cl}_2$ . The crystal structure was determined by X-ray diffraction methods and refined by a full-matrix least-squares technique to  $R = 0.0495$  for 2026 independent non-zero reflections. Crystals are triclinic, space group  $P\bar{1}$ , with one complex molecule in the unit cell of dimensions:  $a = 10.475(8)$ ,  $b = 10.843(9)$ ,  $c = 11.190(12)$  Å,  $\alpha = 76.91(8)$ ,  $\beta = 73.39(7)$ ,  $\gamma = 81.10(7)^\circ$ . The crystals contain dimeric molecules possessing crystallographic symmetry centres. The titanium(III) ions are octahedrally coordinated by two terminal and two bridging chlorine atoms and two carbonyl oxygen atoms of diethyl *o*-phthalate. The magnetic susceptibility and ESR measurements revealed an antiferromagnetic exchange interaction between titanium atoms in the dimer.

### Adres publiczny

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