Reactions of $TiCl_4$ with diesters : crystal structures of $[CH_2(CO_2Et)_2Cl_4Ti]$ and $[C_2H_4(CO_2CH_2CH_2OPh)_2Cl_4Ti]$.

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Streszczenie

Direct reactions of $TiCl_4$ with diethyl malonate in n-hexane or with bis(2-phenoxoethyl) succinate in toluene yield the crystalline compounds $[CH_2(CO_2Et)_2Cl_4Ti]$ (**1**) and $[C_2H_4(CO_2CH_2CH_2OPh)_2Cl_4Ti]$ (**2**), respectively. The crystal structures of both complexes have been determined by a single crystal X-ray diffraction study, and refined by full-matrix least-squares techniques to an *R* of 0.034 and 0.038 for 1575 and 1490 independent non-zero reflections for **1** and **2**, respectively. Crystals of **1** are monoclinic, space group $P2_1/c$, $Z = 4$, $a = 7.716(10)$, $_b = 18.21(2)$, $c = 12.384(10)$ Å, $\beta = 127.29(8)°$. Crystals of **2** are triclinic, space group P, $Z = 2$, $a = 8.680(12)$, $b = 10.\ 178(11)$, $c = 14.398(15)$ Å, $\alpha = 78.45\ (9)$, $\beta = 74.16(9)$, $\gamma = 88.45(9)°$. The titanium atoms in **1** and **2** are octahedrally-coordinated by four chlorine atoms and two carbonyl oxygen atoms of coordinated diester molecules. The titanium atoms and the chelate ligand atoms form the six-membered ring in **1** and the seven-membered ring in **2**.

Adres publiczny

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