Ti^{IV} and Mo^{V} complexes with diesters. The crystal structure of [*o*-$C_6H_4(CO_2CH_2CH_2Ph)_2Cl_4Ti$],[$C_2O_4(CH_2CH_2Ph)_2Cl_4Ti$] and [*o*-$C_6H_4(CO_2Et)_2Cl_3MoO]\cdot C_6H_6$.

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Streszczenie

The crystal structures of [*o*-$C_6H_4(CO_2CH_2CH_2Ph)_2Cl_4Ti$] (I), in the presence of activators a good catalyst for olefin polymerization, [$C_2O_4(CH_2CH_2Ph)_2Cl_4Ti$] (II) and [*o*-$C_6H_4(CO_2Et)_2Cl_3MoO$] (III), have been determined by X-ray diffraction methods and refined by a full-matrix least-squares technique to R = 0.036, 0.041 and 0.055 for 2775, 2437 and 2776 independent non-zero reflections for I, II and III, respectively. The crystals of I are triclinic, space group P with two molecules in a unit cell of dimensions a = 10.475(8), b = 10.078(9), c = 13.683(9) Å, α = 88.75(7) β = 72.65(6) γ = 66.95(7)°. The crystals of II are monoclinic, space group $P2_1/c$, with four molecules in a cell with a = 10.045(8), b = 21.032(22), c = 13.193(9) Å, β = 128.91(6)°. The titanium atoms in I and II are octahedrally coordinated by four chlorine and two carbonyl oxygen atoms of coordinated *o*-diester molecules in the *cis* position. The crystals of III are triclinic, space group P, with two molecules in a unit cell of dimensions a = 9.722(12), b = 8.073(12), c = 15.683(21) Å, α = 83.46(9), β = 75.81(9), γ = 67.74(9)°. Three Cl atoms, one oxo oxygen and two O atoms of the carbonyl groups form a distorted octahedron around the molybdenum atom. The chelate ligand atoms and the titanium atom in I or molybdenum atom in III form a seven-membered ring which is five-membered in II.

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