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Synthesis and structure of *bis*(trichloroacetate) tri-*ortho*-tolylbismuth

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Abstract

Reaction of tri-*ortho*-tolylbismuth, carboxylic acid and hydrogen peroxide was conducted to obtain bis-(trichloroacetate) tri-*ortho*-tolylbismuth (**I**) (92%) and dibenzoate of tri-*ortho*-tolylbismuth (96%). According to the X-ray data, bismuth atoms in **I** have a distorted trigonal-bipyramidal environment (excluding additional coordination of carbonyl oxygen atoms) with *ortho*-tolyl ligands in equatorial positions. Lengths of Bi-C bonds in I constitute 2.20(2), 2.23(2), 2.25(2) Å, and distances Bi-O and Bi···O(=C) are equal to 2.33(1), 2.31 (3) and 3.12(3), 3.18(3) Å. Equatorial angle CBiC on the side of one contact Bi···O(=C) is increased (132.0 (9)°); the value of the similar angle on the side of other contact Bi···O(=C) (114.8(9)°) approaches the value of the third equatorial angle (113.2(9)°).