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## Synthesis and structure of 4-nitrophenylacetate tetraphenylantimony

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## Abstract

Interaction of pentaphenylantimony with 4-nitrophenylacetic acid or bis(4-nitrophenylacetato) triphenylantimony in toluene was carried out to produce 4-nitrophenylacetate tetraphenylantimony with the yield up to 95%. Bis(4-nitrophenylacetate) of triphenylantimony was synthesized with 84% yield by the reaction of oxidative addition of hydrogen peroxide and 4-nitrophenylacetic acid in the air from triphenylantimony. The of structure solvates 4-nitrophenylacetate tetraphenylantimony of the crystal with toluene Ph<sub>4</sub>SbOC(O)CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>NO<sub>2</sub>-4·½C<sub>6</sub>H<sub>5</sub>CH<sub>3</sub> (I) was found by X-ray method. Sb atom in I has a distorted trigonalbipyramidal coordination with phenyl and carboxilate ligands in the axial positions (angle  $C_aSbO 176.26 (8)^\circ$ ). Bond lengths of Sb-O, Sb-Ca and Sb-Ce are 2.220 (2), 2.168 (3) and 2.108 (3), 2.115 (2), 2.119 (2) Å, respectively. In molecule I there is observed intramolecular contact between the Sb and O atoms of the carbonyl group (3.247 (3) Å). Structural organization in the crystal is due to weak hydrogen bonds.