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## Synthesis and structure of $\mu$ -oxo-bis[(*tert*-butylperoxy)triphenylantimony] and $\mu$ -oxo-bis[(4-nitrophenoxy)triphenylantimony]

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### Abstract

Reacting triphenylantimony with *tert*-butyl hydroperoxide and of 4-nitrophenol in the presence of *tert*-butyl hydroperoxide we synthesized  $\mu$ -oxo-bis[(*tert*-butylperoxy)triphenylantimony] (**I**) and  $\mu$ -oxo-bis[(4-nitrophenoxy)triphenylantimony] (**II**), the structure of which was established by X-ray diffraction. Antimony atoms in the binuclear molecules have a distorted trigonal-bipyramidal coordination with oxygen atoms in axial positions. Bond lengths Sb-C are 2.111(3)-2.119(3) Å, Sb-O<sub>bridge</sub> 1.9698(2) Å, Sb-O<sub>terminal</sub> 2.078(2) Å, angles O<sub>bridge</sub>SbO<sub>terminal</sub> 170.17(6)°, SbOSb 180° for **I** and Sb-C 2.085(6)-2.108(5) Å, Sb-O<sub>bridge</sub> 1.979(3), 1.982(3) Å, Sb-O<sub>terminal</sub> 2.143(3), 2.141(3) Å, O<sub>bridge</sub>SbO<sub>terminal</sub> 177.12(16)°, 177.70(14)°, SbOSb 138.0(2)° for **II**.