

## Synthesis and structure of $\mu_2$ -oxo-bis[(*tert*-butylperoxy)tri(*m*-tolyl)antimony] (*m*-Tol<sub>3</sub>SbOOBu-*t*)<sub>2</sub>O

© Vladimir V. Sharutin,<sup>\*+</sup> Olga K. Sharutina, and Nikolai V. Somov

Chemistry Faculty. South Ural State University. Lenin St., 76. Chelyabinsk, 454080. Russia.

Phone: +7 (351) 267-95-70. E-mail: [vvsharutin@rambler.ru](mailto:vvsharutin@rambler.ru)

<sup>\*</sup>Supervising author; <sup>+</sup>Corresponding author

**Keywords:**  $\mu_2$ -oxo-bis[(*tert*-butylperoxy)tri(*m*-tolyl)antimony] (*m*-Tol<sub>3</sub>SbOOBu-*t*)<sub>2</sub>O, synthesis, structure.

### Abstract

By the interaction of three-*meta*-tolylantimony with *tert*-butylhydroperoxide in ether there has been synthesized  $\mu_2$ -oxo-bis[(*tert*-butylperoxy)tri(*m*-tolyl)antimony], in centrosymmetric dinuclear molecule of which (the inversion center – bridging oxygen atom), the antimony atoms have trigonal-bipyramidal environment with oxygen atoms in axial positions (CSbC 115.95(17)°, 118.11(16)°, 125.41(17)°; SbOSb 180°, OSbO 175.63(13)°, Sb–C 2.109(4), 2.115(4), 2.121(4) Å, Sb–O<sub>bridge</sub> 1.9904(12) Å, Sb–O<sub>term</sub> 2.089(3) Å, O–O 1.462(5) Å).