

## Tetraorganylphosphonium triiodide $[\text{Ph}_3\text{RP}]^+[\text{I}_3]^-$ ( $\text{R} = \text{CH}_2\text{CHMe}_2, \text{CH}_2\text{Ph}$ ). Synthesis and Structure.

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

Faculty of Chemistry. National Research South Ural State University. Lenina 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

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### Abstract

Reaction of tetraorganylphosphonium iodides  $\text{Ph}_3\text{RPI}$  ( $\text{R} = \text{CH}_2\text{CHMe}_2, \text{CH}_2\text{Ph}$ ) with antimony triiodide in dimethylsulfoxide resulted in synthesizing complexes  $[\text{Ph}_3\text{PCH}_2\text{CHMe}_2]^+[\text{I}_3]^-$  (**I**),  $[\text{Ph}_3\text{PCH}_2\text{Ph}]^+[\text{I}_3]^-$  (**II**). According to the X-ray data, the phosphorus atoms in the cation complex **I-II** have a tetrahedral coordination (CPC 107.2(3)-111.1(2)°), bond lengths P-C are 1.788(5)-1.815(5) Å, respectively. In linear anions  $[\text{I}_3]^-$  I-I-I angles and I-I bond lengths are equal to 178.31(2)°, 179.15(2)° and 2.8882(6)-2.9298(8) Å, respectively. Cations and anions in the crystals **I** and **II** are connected with each other through weak hydrogen bonds  $\text{H}\cdots\text{I}$  3.57 Å (**I**), 3.06 Å (**II**).