

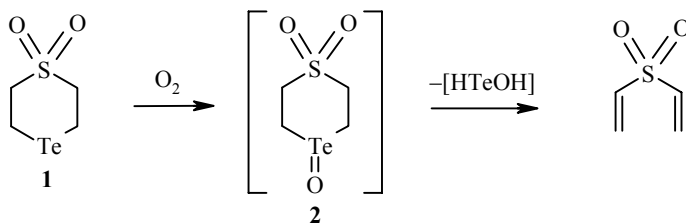
## EXAMPLE OF "DOUBLE" ELIMINATION IN OXIDATION OF A CYCLIC TELLURIDE

V. A. Potapov, S. V. Amosova, and I. V. Doron'kina

**Keywords:** divinyl sulfone, tellurenic acid, 1-thia-4-telluracyclohexane-1,1-dioxide, elimination.

The reaction of elimination of organytellurenic acids,  $\text{RTeOH}$ , from organic telluroxides with formation of olefins is well known [1-3]. On heating, cyclic tellurides undergo extrusion of the tellurium atom with formation of a new carbon-carbon bond [4, 5].

We synthesized a series of cyclic tellurides earlier in [6-9]. While studying their chemical properties, we observed a reaction of "double" elimination upon oxidation of 1-thia-4-telluracyclohexane-1,1-dioxide (**1**) [9]. Heating telluride **1** ( $145^\circ\text{C}$ , 25 h) in the presence of air leads to divinyl sulfone in quantitative yield. When heated under similar conditions under an argon atmosphere, telluride **1** is recovered unreacted. The reaction probably occurs through oxidation of telluride **1** by the oxygen of air with formation of the intermediate telluroxide **2** and subsequent elimination of tellurenic acid  $\text{HTeOH}$ .



Divinyl sulfone was identified with the help of  $^1\text{H}$  NMR and  $^{13}\text{C}$  using an authentic sample [10].

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A. E. Favorsky Irkutsk Institute of Chemistry, Siberian Branch of Russian Academy of Sciences, Irkutsk 664033; e-mail: potapov@irioc.irk.ru. Translated from *Khimiya Geterotsiklicheskikh Soedinenii*, No. 6, p. 855, June, 2001. Original article submitted April 15, 2001.

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