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SHORT COMMUNICATIONS

Replacement of Two Methylseleno Groups by Two Phenylthio Groups in the Thermal Reaction of 1,2-Bis(methylseleno)-1-phenylethene with Diphenyl Disulfide

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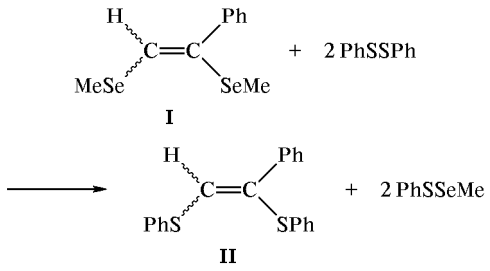
We have revealed a surprisingly facile replacement of two methylseleno groups by two phenylthio groups in the thermal reaction of 1,2-bis(methylseleno)-1-phenylethene (**I**) with diphenyl disulfide. Heating of bis(methylseleno)ethene (**I**) (*Z*/*E* isomer ratio 2 : 3) with diphenyl disulfide in a sealed ampule (150°C, 120 h) leads to formation of 1-phenyl-1,2-bis(phenylthio)ethene (**II**) (*Z*/*E* isomer ratio 1 : 2) in 40% yield (the yield was calculated on the initial amount of ethene **I** and was not optimized) and methylseleno phenyl sulfide (yield 42%). Presumably, the reaction follows a radical mechanism involving homolytic dissociation of the carbon–selenium bond and subsequent reaction of the vinyl radical thus formed with diphenyl disulfide. We are now studying the possibility of extending this reaction to other organoselenium compounds.



1,2-Bis(methylseleno)-1-phenylethene (**I**) was synthesized by addition of dimethyl diselenide to phenylacetylene according to the procedure reported in [1]. The spectral parameters and physical constants of 1,2-bis(phenylthio)-1-phenylethene (**II**) were in agreement with published data [2].

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