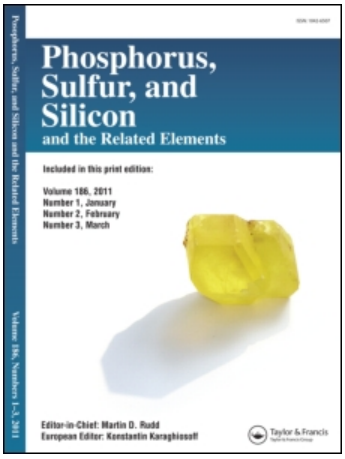

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SYNTHESIS AND REACTIONS OF THE FIRST 9,9,10,10-TETRAHALO-9,10-DIHYDRO-9,10-DISTANNAANTHRACENES

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SYNTHESIS AND REACTIONS OF THE FIRST 9,9,10,10-TETRAHALO-9,10-DIHYDRO-9,10-DISTANNAANTHRACENES

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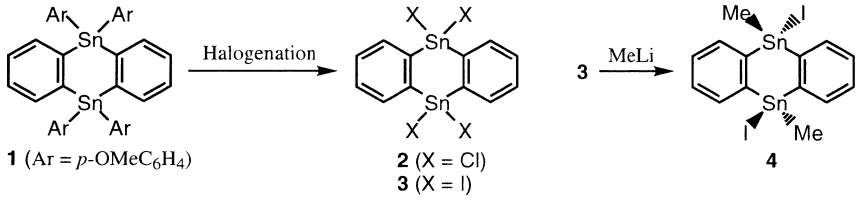
Keyword: 9,9,10,10-Tetrahalo-9,10-dihydro-9,10-distannaanthracene

Since the first synthesis of 9,10-dihydro-9,10-disilaanthracene,[1] studies on the synthesis, structure, and reactions of dihydroanthracenes having group 14 metals (Si, Ge, Sn) in these central six-membered rings have been developed. One of the most interesting features of the dihydroanthracene derivatives is their synthetic utility as potential precursors for metal-containing reactive intermediates. In the course of our studies on 9,10-dihydro-9,10-distannaanthracene[2] as precursors for reactive species having a 9,10-distannaanthracene skeleton, we report herein the first synthesis of 9,9,10,10-tetrahalo-9,10-dihydro-9,10-distannaanthracenes from 9,9,10,10-tetra(*p*-methoxyphenyl)-9,10-dihydro-9,10-distannaanthracene (**1**).

Chlorination of **1** by acetyl chloride or tetrachlorogermane in the presence of a catalytic amount of aluminum chloride gave the first 9,9,10,10-tetrachloro derivative **2**. Iodination of **1** gave the first 9,9,10,10-tetraiodo derivative **3**. Reaction of **3** with methyl lithium gave the dimethyl derivative **4**. The stereochemistry of **4** is assigned to be trans by x-ray structural analysis.



1 (Ar = *p*-$OMeC_6H_4$) **2** (X = Cl) **3** (X = I) **4**

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