

# Synthese von Erdalkalimetalloenen aus Erdalkalimetall- bis[bis(trimethylsilyl)amid] und 6-Methyl-6-phenylfulven

Synthesis of Alkaline Earth Metalloenes from Alkaline Earth Metal  
Bis[bis(trimethylsilyl)amide] and 6-Methyl-6-phenylfulvene

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The transmetalation of bis[bis(trimethylsilyl)amino]stannylene in tetrahydrofuran with the alkaline earth metals yields the bis(tetrahydrofuran) adducts of calcium (**1a**), strontium (**1b**) and barium bis[bis(trimethylsilyl)amide] (**1c**). The metalation of 6-methyl-6-phenylfulvene with **1a**, **1b** and **1c** gives 1,1'-bis(1-phenyl-ethen-1-yl)calcocene **2a**, -strontocene **2b** and -barocene **2c**, respectively. The reaction of **1b** with equimolar amounts of 6-methyl-6-phenylfulvene and acetophenone leads to the formation of bis[ $\mu$ -[ $\eta^5$ -1-(3-hydroxy-1-methyl-1,3-diphenyl-2-propen-1-yl)-2,4-cyclo-pentadien-1-yl](2-)-C,O:O]tetrakis(tetrahydrofuran-O)distrontium **3**. The metathesis reaction of **2a** with  $YCl_3$  and  $SnCl_2$  yields the corresponding ytrocenechloride **4** and stannocene **5**. Crystallographic data of **1a**: monoclinic,  $P2_1/c$ ,  $a = 841.6(4)$ ,  $b = 1936.9(6)$ ,  $c = 1938.0(10)$  pm,  $\beta = 100.84(4)^\circ$ ,  $Z = 4$ ,  $wR_2 = 0.1199$ ; **1b**: orthorhombic,  $Pbca$ ,  $a = 1924.8(4)$ ,  $b = 1747.8(3)$ ,  $c = 1930.1(4)$  pm,  $Z = 8$ ,  $wR_2 = 0.1248$ ; **3**: monoclinic,  $P2_1/c$ ,  $a = 1230.42(11)$ ,  $b = 1343.08(11)$ ,  $c = 1597.34(14)$  pm,  $\beta = 104.610(7)^\circ$ ,  $Z = 4$ ,  $wR_2 = 0.0980$ .

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