

# Chemistry of $\text{C}_6\text{F}_5\text{SeLi}$ and $\text{C}_6\text{F}_5\text{SeCl}$ : Precursors to New Pentafluorophenylselenium(II) Compounds

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Z. Naturforsch. **59b**, 547 – 553 (2004); received February 2, 2004

*Dedicated to Professor Manfred Adelhelm on the occasion of his 65<sup>th</sup> birthday*

Pentafluorobenzeneselenenyl chloride,  $\text{C}_6\text{F}_5\text{SeCl}$ , was reacted with various nitrogen and chalcogen substituted trimethylsilyl nucleophiles. The products,  $\text{C}_6\text{F}_5\text{SeSCN}$ ,  $\text{C}_6\text{F}_5\text{SeNSO}$ ,  $(\text{C}_6\text{F}_5\text{Se})_2\text{NMe}$ ,  $\text{C}_6\text{F}_5\text{SeN(Me)SiMe}_3$ ,  $(\text{C}_6\text{F}_5\text{Se})_2\text{S}$  and  $(\text{C}_6\text{F}_5\text{Se})_2\text{Se}$ , were characterized by spectroscopic methods. The reaction of  $\text{C}_6\text{F}_5\text{SeLi}$  with  $\text{Me}_3\text{XHal}$  compounds gave the products  $\text{C}_6\text{F}_5\text{SeXMe}_3$  ( $\text{X} = \text{Si, Ge, Sn, Pb}$ ). The molecular structure of  $(\text{C}_6\text{F}_5\text{Se})_2\text{S}$  has been determined by X-ray diffraction.

*Key words:* Pentafluorobenzeneselenenyl Pseudohalides, Pentafluorophenylselenolate,  
Multinuclear NMR Spectroscopy