

# 1,2-Verzweigte Carbosiloxan-Dendrimere mit Hauptgruppenelement- und Übergangsmetall-modifizierten Oberflächen

1,2-Branched Carbosiloxane-Dendrimers with Main-Group Element and Transition-Metal Modified Surfaces

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Carbosiloxane, Dendrimer, Propargyloxy Unit, Hexacarbonyldicobalt, Coordination Ability

The preparation of the first and second generation carbosiloxane dendrimers  $\text{Si}[\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMe}(\text{OCH}_2\text{C}\equiv\text{CH})_2]_4$  (**3**) and  $\text{Si}\{\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMe}[\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMe}(\text{OCH}_2\text{C}\equiv\text{CH})_2]_2\}_4$  (**5**) by the reaction of  $\text{Si}(\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMeCl}_2)_4$  (**1**) or  $\text{Si}[\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMe}(\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMeCl}_2)_2]_4$  (**4**) with  $\text{HOCH}_2\text{C}\equiv\text{CH}$  (**2**) in the presence of  $\text{NEt}_3$  is described. Dendrimers **3** and **5** contain propargyloxy units as terminal groups, which can be transferred to  $\text{Co}_2(\text{CO})_8$  (**6**) to give the hexacarbonyldicobalt functionalized dendritic molecules  $\text{Si}\{\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMe}[(\eta^2\text{-OCH}_2\text{C}\equiv\text{CH})\text{Co}_2(\text{CO})_6]_2\}_4$  (**7**) and  $\text{Si}\{\text{OCH}_2\text{CH}_2\text{CH}_2\text{SiMe}[(\eta^2\text{-OCH}_2\text{C}\equiv\text{CH})\text{Co}_2(\text{CO})_6]_2\}_2\}_4$  (**8**).

All compounds were characterized by elemental analyses, spectroscopic studies (IR,  $^1\text{H}$ -,  $^{13}\text{C}\{^1\text{H}\}$ -,  $^{29}\text{Si}\{^1\text{H}\}$  NMR) as well as GPC investigations.