Neue bifunktionelle Silazane und ihr Kondensationsverhalten: 3-Methyl-2,2,4,4-tetrakis(methylamino)-1-phenyl-[1,3,2,4]diazadisiletidin, 1,3-Dichloro-2-phenyl-1,1,3,3-tetrakis(dimethylamino)disilazan, 3-Methyl-2,2,4,4-tetrakis(dimethylamino)-1-phenyl-[1,3,2,4]diazadisiletidin und 2,2,4,4-Tetrakis(dimethylamino)-1-phenyl-[1,3,2,4]diazadisiletidin

New Bifunctional Silazanes and their Condensation Reactions: 3-Methyl-2,2,4,4-tetrakis(methylamino)-1-phenyl-[1,3,2,4]diazadisiletidine, 1,3-Dichloro-2-phenyl-1,1,3,3-tetrakis(dimethylamino)disilazane, 3-Methyl-2,2,4,4-tetrakis(dimethylamino)-1-phenyl-[1,3,2,4]diazadisiletidine and 2,2,4,4-Tetrakis(dimethylamino)-1-phenyl-[1,3,2,4]diazadisiletidine

S. Bzik[a] und M. Jansen[b]

[a] Institut für Anorganische Chemie der Universität Bonn, Gerhard-Domagk-Str.1, D-53121 Bonn
[b] Max-Planck-Institut für Festkörperforschung, Heisenbergstr. 1, D-70569 Stuttgart

Sonderdruckanforderungen an Prof. Dr. M. Jansen.
E-mail: martin@jansen.mpi-stuttgart.mpg.de

Z. Naturforsch. **57 b,** 83–91 (2002); eingegangen am 8. Oktober 2001

Cross Linking, Silazanes

3-Methyl-2,2,4,4-tetrakis(methylamino)-1-phenyl-[1,3,2,4]diazadisiletidine (**1**), 1,3-Dichloro-2-phenyl-1,1,3,3-tetrakis(dimethylamino)disilazane (**2**), 3-Methyl-2,2,4,4-tetrakis(dimethylamino)-1-phenyl-[1,3,2,4]diazadisiletidine (**3**) and 2,2,4,4-Tetrakis(dimethylamino)-1-phenyl-[1,3,2,4]diazadisiletidine (**4**) have been synthesized as potential precursors for the preparation of porous oxygen-free solids. All compounds were characterized by crystal structure analysis. **1** crystallizes monoclinically, $P2_1/c$, a = 8.44(1), b = 19.56(1), c = 10.68(1) Å, β = 109.4(1)° and Z = 4 (R_1 = 8.7%, wR_2 = 20.7%, 1545 independent reflections). **2** crystallizes triclinically, $P\bar{1}$, a = 8.011(2), b = 8.424(2), c = 16.082(2) Å, α = 91.08(1)°, β = 93.89(1)°, γ = 105.71(1)° and Z = 2 (R_1 = 3.0%, wR_2 = 7.9%, 3657 independent reflections). **3** crystallizes monoclinically, $P2_1/c$, a = 29.746(2), b = 21.590(2), c = 13.331(2) Å, β = 102.95(1)° and Z = 16 (R_1 = 4.3%, wR_2 = 9.3%, 6667 independent reflections). **4** crystallizes triclinically, $P\bar{1}$, a = 10.450(1), b = 10.467(1), c = 17.948(1) Å, α = 97.43(1)°, β = 98.73(1)°, γ = 90.08(1)° and Z = 4 (R_1 = 10.2%, wR_2 = 25.8%, 3586 independent reflections). Polycondensation of **1** and ammonolysis and polycondensation of **2** yield amorphous solids with different porosities.