

**Synthesen und Kristallstrukturen von
Tris(di-*n*-propylamino)-*p*-brombenzylphosphonium-bromiden:
[(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺Br⁻ und [(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺Br₃⁻**

Syntheses and Crystal Structures of Tris(di-*n*-propylamino)-*p*-bromobenzyl-phosphonium Bromides: [(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺Br⁻ and [(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺Br₃⁻

J. Nolte, P. Neubauer, H. Vogt*, M. Meisel

Fachinstitut für Anorganische und Allgemeine Chemie, Institut für Chemie der Humboldt-Universität zu Berlin, Hessische Str. 1/2, D-10115 Berlin

Z. Naturforsch. **54 b**, 113–116 (1999); eingegangen am 17. August 1998

Tris(di-*n*-propylamino)-*p*-bromobenzylphosphonium Bromides, Synthesis, Crystal Structure, Tris(di-*n*-propylamino)phosphine

Tris(di-*n*-propylamino)-*p*-bromobenzylphosphonium bromide [(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺Br⁻ (**1**) has been prepared by the reaction of tris(di-*n*-propylamino)phosphine with *p*-bromobenzylbromide in methylene chloride. The colorless crystals are monoclinic, space group P2₁, Z = 2, *a* = 930.2(3), *b* = 1501.2(3), *c* = 1093.5(2) pm, β = 105,97(4)°. The lattice contains Br⁻ anions and [(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺ cations. [(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺Br₃⁻ (**2**) has been obtained by treating **1** with equimolar quantities of elemental bromine in methylene chloride solution. The yellow-red crystals of **2** are triclinic, space group P $\bar{1}$, Z = 2, *a* = 1069.5(3), *b* = 1267.7(7), *c* = 1273.7(3) pm, α = 87.27(3), β = 82,67, γ = 67.15°, and consist of [(C₃H₇)₂N]₃PCH₂C₆H₄Br⁺ cations and linear Br₃⁻ anions. The three N atoms in the cations of **2** are planar.

* Sonderdruckanforderungen an Dr. H. Vogt.