

# Kristallstruktur des „supramolekularen“ Komplexes [K(Benzo-18-krone-6)][Zn(CN)<sub>3</sub>]·H<sub>2</sub>O mit einem polymeren kettenförmigen Tricyanozincat-Anion

Crystal Structure of the “Supramolecular” Complex [K(benzo-18-crown-6)][Zn(CN)<sub>3</sub>]  
·H<sub>2</sub>O with a Polymeric Tricyano Zincate Anion with Chain Structure

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Zinc Cyanide Complex, Crown Ether Complex, Crystal Structure

Crystals of the complex [K(benzo-18-crown-6)][Zn(CN)<sub>3</sub>]·H<sub>2</sub>O were obtained from a solution of Zn(CN)<sub>2</sub>, KCN, and benzo-18-crown-6 in water/methanol. The compound crystallizes in the triclinic space group P $\bar{1}$  (no. 2),:  $Z = 2$ ,  $a = 818,6(5)$ ,  $b = 1236,7(8)$ ,  $c = 1359,6(6)$  pm,  $\alpha = 67,02(4)$ ,  $\beta = 87,38(4)$ ,  $\gamma = 75,46(5)$ . Each Zn atom is bonded to one bridging cyanide ion to give chains –Zn(CN)Zn–, and to two terminal CN groups. The N atom of one of the terminal CN groups interacts with a potassium ion of the [K(benzo-18-crown-6)]<sup>+</sup> unit. The coordination spheres of the K ions are completed by water molecules, which in turn form hydrogen bonds to N atoms of terminal CN groups of neighbouring chains, whereby puckered sheets are formed.