

Polysulfonylamine, CXII [1]

Neues aus der Festkörperchemie der 2-Pyridone: Isolierung und Röntgenstrukturen von Bis(2-pyridon)hydrogen(I)- und Bis(6-methyl-2-pyridon)hydrogen(I)-dimesylamid

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A Novel Solid-State Aspect of 2-Pyridones: Isolation and X-Ray Structures of Bis(2-pyridone)hydrogen(I) and Bis(6-methyl-2-pyridone)hydrogen(I) Dimesylamides

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2-Pyridones, 2-Hydroxypyridines, Dimesylamide, Homoconjugate Cations, Crystal Structure

The compounds $(2\text{-pyridone})_2\text{H}^+(\text{MeSO}_2)_2\text{N}^-$ (**1**, monoclinic, space group $P2_1/n$) and $(6\text{-methyl-2-pyridone})_2\text{H}^+(\text{MeSO}_2)_2\text{N}^-$ (**2**, triclinic, $P\bar{1}$) crystallize selectively and in good yields when the parent 2-pyridones (2-hydroxypyridines) are treated with the strong NH acid dimesylamine in acetonitrile or acetone. The corresponding 2-hydroxypyridinium salts could not be obtained. In the unprecedented crystal structures of **1** and **2**, two pyridone units are linked by a proton to form very short and approximately symmetric $\text{O}\cdots\text{H}^+\cdots\text{O}$ hydrogen bonds, the adjacent C–O distances being appreciably elongated as compared to “free” pyridones [**1**: $\text{O}\cdots\text{O}$ 241.8(2), C–O 127.8(3) and 129.1(2) pm; **2**: $\text{O}\cdots\text{O}$ 243.8(2), C–O 128.1(2) and 129.2(2) pm]. In both crystal packings, the homoconjugate cations and the dimesylamide anions are alternately associated into chains by an $\text{N}-\text{H}\cdots\text{N}^-$ and an $\text{N}-\text{H}\cdots\text{O}$ hydrogen bond.

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