

## MS41-P04 | TWO NEW POLYMORPHS OF $\text{CuCl}_2 \cdot 2\text{DMF}$ OBTAINED VIA HIGH-TEMPERATURE CRYSTALLIZATION

Goreshnik, Evgeny (Jožef Stefan Institute, Ljubljana, SVN)

Crystal structure of  $\alpha\text{-CuCl}_2 \cdot 2\text{DMF}$  was published first time on late 1970-th [1, 2]. Crystallization of titled compound from dimethylformamide at 60-65 °C results in a formation of two another polymorph modifications. Contrary to monoclinic (sp. gr.  $P2_1/n$ ) structure of earlier discovered polymorph new b- and g-modifications are triclinic, sp. gr.  $P\bar{1}$ ). All three polymorphs are built up from  $\text{Cu}_2\text{Cl}_4 \cdot 4\text{DMF}$  dimers with slightly different mutual orientations of DMF molecules attached to the same metal ion. The presence of inter- and intra-molecular hydrogen bonds results also in a formation of different crystal structures. Surprisingly the DSC measurements do not show any noticeable effects.

	<b>a</b>	<b>b</b>	<b>c</b>	<b><math>\alpha</math></b>	<b>b</b>	<b>g</b>	<b>V/Z</b>
<b><math>\alpha</math></b>	11.568(5)	11.617(7)	8.992(4)		111.87(5)		1195.71/4
<b>b</b>	8.1549(4)	10.2410(5)	13.5866(7)	91.855(4)	90.777(4)	90.850(4)	1133.85/4
<b>g</b>	7.389(1)	8.281(1)	10.484(1)	99.58(1)	102.45(1)	110.36(1)	566.48/2

- [1] I.P. Lavrent'ev, L.G. Korableva, E.A. Lavrent'eva, G.A. Nifontova, M.L. Khidekel, I.G. Gusakovskaya, T.I. Larkina, L.D. Arutyunyan, O.S. Filipenko, V.I. Ponomarev, L.O. Atovmyan. *Koord.Khim.(Russ.)(Coord.Chem.)*, 5, 1484 (1979)  
[2] H.Suzuki, N.Fukushima, Shin-ichi Ishiguro, H.Masuda, H.Ohtaki. *Acta Crystallogr., Sect.C:Cryst.Struct.Commun.*, 47, 1838 (1991)