Structural Variation of 1:1 Adducts of Lead(II) Chloride and Bromide with *N,N'*-Dimethylethylenediamine from 123K to 303K

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It has been reported that *N*-methyl substituted ethylenediamines form 1:1 adducts with lead(II) halides [1]. Among them *N,N*'-dimethylethylenediamine with PbX_2 (X=Cl, Br or I) crystallizes in the tetragonal system forming 4_1 spirals with two bridging halides. We examined which part contributes mostly to volume contraction upon cooling, comparing the different halides [2].

All cells undergo contraction predominantly along the **c** axis, which is connected to lower order bonds of the halogen bridge, while the bonds within the chelate do not contribute to the cell contraction.

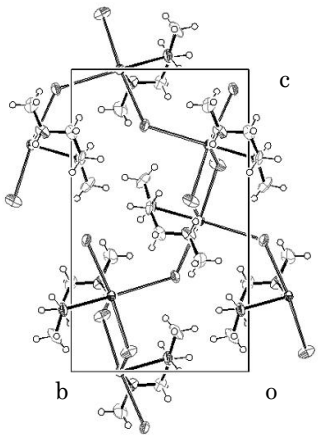

Fig. 1. Crystal packing viewed along **a**.

[1] Miyamae H., Hatanaka Y., Iijima Y., Hihara G., Nagata M., *AsCA Program Abstracts*, 1992, **16S**, 44. [2] Miyamae H., Enomoto K., Maruyama Y., Hihara G., *AsCA'03/Crystal*, 2003, **23**, 154.

Keywords: lead halide, temperature dependence, adduct