

Crystal data for $\text{Cd}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$ and $\text{Ca}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$

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Both crystals were prepared by adding an equal volume of fuming nitric acid to a saturated aqueous solution of the nitrate and seeding the solutions with a crystal of the anhydrous salt. The cell parameters were obtained with a SINTEX $P\bar{1}$ automatic four-circle x-ray diffractometer using $\text{MoK}\alpha$ radiation ($\lambda = 0.7107 \text{ \AA}$). The crystallographic data are given in Table 1 along with the other dihydrate nitrates of bivalent metals. The density was determined by flotation method. Further work on the complete determination of the crystal structures of $\text{Cd}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$ and $\text{Ca}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$ are in progress.

Table 1. *Crystal data*

	$\text{Cd}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$	$\text{Ca}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$	$\text{Zn}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$	$\text{Mg}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$
<i>a</i>	5.972 (2)	11.838 (4)	5.754 (6)	5.81 (1) Å
<i>b</i>	8.996 (4)	16.510 (5)	5.978 (5)	5.99 (1) Å
<i>c</i>	12.129 (6)	12.600 (3)	8.557 (5)	8.65 (1) Å
β	102.19 (4)		91.0 (3)	90.7 (2) °
<i>Z</i>	4	16	2	2
<i>D_m</i>	2.72	2.12	2.50	1.95 g/cm ³
<i>D_x</i>	2.84	2.14	2.54	2.02 g/cm ³
Space group	<i>P</i> 2 ₁ / <i>c</i>	<i>Ccca</i>	<i>P</i> 2 ₁ / <i>c</i>	<i>P</i> 2 ₁ / <i>c</i>
Reference	This work	This work	RIBÁR <i>et al.</i> (1969)	RIBÁR <i>et al.</i> (1973)

References

- B. RIBÁR, W. NOWACKI, M. ŠLJUKIĆ, S. ŠČAVNIČAR und F. GABELA (1969), Die Kristallstruktur von $\text{Zn}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$. *Z. Kristallogr.* **129**, 305–317.
 B. RIBÁR, F. GABELA, R. HERAK und B. PRELESNIK (1973), Die Kristallstruktur von $\text{Mg}(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O}$. *Z. Kristallogr.* **137**, 290–295.