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On the structure of (Cr_5Al_8) 26*R*. A correction.

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An error in *Strukturbericht* (1940, **5**, 11) and Pearson [*A Handbook of Lattice Spacings and Structures of Metals and Alloys* (1967), Vol. 2, p. 111. Oxford: Pergamon Press] is pointed out with the help of the original data.

The structure of Cr_5Al_8 was determined by Bradley & Lu (1937), by analogy with the structure of Cu_5Zn_8. The latter compound has a cubic body-centred unit cell with $a = 8{\cdot}86$ Å, whereas Cr_5Al_8 can be described on a body-centred rhombohedral unit cell with $a = 9{\cdot}0508$ Å and $\alpha = 89{\cdot}273°$. In order to indicate the close similarity between the two structures, Bradley & Lu give their final atomic parameters in terms of this body-centred rhombohedral cell. Unfortunately they also state in their paper the primitive unit cell (rhombohedral, $R3m$, $a = 7{\cdot}805$, $\alpha = 109{\cdot}127°$) without giving the atomic parameters in terms of this cell. As a result, the reports in both *Strukturbericht* (1940, **5**, 11) and Pearson (1967) give the small unit cell with the atomic parameters of the large (body-centred) cell.

Table 1. *Structure of* (Cr_5Al_8) 26*R*: *space group R3m*, $a = 7{\cdot}8051$ Å, $\alpha = 109{\cdot}217°$, $Z = 2$

		x	*y*	*z*
1 Cr in 1(*a*)	*x*,*x*,*x*	0·194		
3 Cr in 3(*b*)	*x*,*x*,*z*	0·003		0·794
3 Cr in 3(*b*)	*x*,*x*,*z*	0·998		0·340
3 Cr in 3(*b*)	*x*,*x*,*z*	0·355		0·006
1 Al in 1(*a*)	*x*,*x*,*x*	0·672		
3 Al in 3(*b*)	*x*,*x*,*z*	0·654		0·012
3 Al in 3(*b*)	*x*,*x*,*z*	0·349		0·582
3 Al in 3(*b*)	*x*,*x*,*z*	0·722		0·356
6 Al in 6(*c*)	*x*,*y*,*z*	0·033	0·288	0·661

A transformation from the rhombohedral body-centred cell to the rhombohedral primitive cell is $/-\frac{1}{2},\frac{1}{2},\frac{1}{2}/$ $\frac{1}{2},-\frac{1}{2},\frac{1}{2}/\frac{1}{2},\frac{1}{2},-\frac{1}{2}/$. The new atomic parameters can then be calculated from the old ones from $X_{new} = Y_{old} + Z_{old}$, $Y_n = Z_o + X_o$, $Z_n = X_o + Y_o$, resulting in the parameter list of Table 1. The new parameters were used to calculate the interatomic distances, which agreed well with those given by Bradley & Lu.

References

BRADLEY, A. J. & LU, S. S. (1937). *Z. Kristallogr.* **96**, 20–37.

PEARSON, W. B. (1967). *A Handbook of Lattice Spacings and Structures of Metals and Alloys*, Vol. 2, p. 111. Oxford: Pergamon Press.

International Union of Crystallography

Eleventh General Assembly and International Congress of Crystallography

By invitation of the Polish Academy of Sciences the Eleventh General Assembly and International Congress of Crystallography will be held in Warsaw, Poland, 3–12 August 1978.

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