Short Communications

Contributions intended for publication under this heading should be expressly so marked; they should not exceed about 1000 *words; they should be forwarded in the usual way to the appropriate Co-editor; they will be published as speedily as possible. Publication will be quicker if the contributions are without illustrations.*

Acta Cryst. (1970). A**26**, 681

Diamagnetic anisotropies of some organic molecules. Corrigenda.

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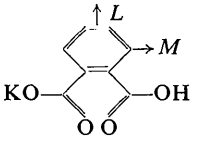
Attention is drawn to a printing error as a result of which some data for potassium acid phthalate were attributed to 10,10′-dianthronyl in *Acta Cryst.* (1969) A**25**, 581.

In the paper (Lasheen, 1969) under the above title two parts of the text were accidentally transposed just before the final printing. The paper reads as originally intended if the part beginning at the heading '10,10′-dianthronyl, $(C_{14}H_9O)_2$' and ending with the words 'towards the second half' (half way down the second column of page 582) is transferred to the beginning of the text. The figures for direction cosines and for molecular susceptibilities and anisotropy in the remaining part of the second column of page 582 refer to potassium acid phthalate. To clear up any possible confusion the final part of the original text, consisting of the section on potassium acid phthalate and the concluding paragraph, is reprinted below in full.

Potassium acid phthalate $C_6H_4(COOH)(COOK)$

Lasheen (1964*a*) measured the crystal magnetic anisotropies and Lasheen & Heddewi (1967) measured the mean molecular susceptibility. These are:

$\chi_b-\chi_a=35{\cdot}6$, $\chi_c-\chi_a=41{\cdot}7$, $\chi_c-\chi_b=6{\cdot}0$, $\bar{\chi}_M=-99{\cdot}25$
Hence, $\chi_a=-125{\cdot}02\pm0{\cdot}12$, $\chi_b=-89{\cdot}42\pm0{\cdot}19$, $\chi_c=-83{\cdot}32\pm0{\cdot}20$ (10^{-6} e.m.u. g^{-1}).



The molecular susceptibilities of this molecule were previously calculated (Lasheen, 1964*a*) by the use of the direction cosines of ammonium acid phthalate, whose crystal structure had been determined by Okaya & Pepinsky (1957).

The crystal structure of potassium acid phthalate was later determined by Okaya (1965) who found:

$$a=6{\cdot}46_6,\ b=9{\cdot}60_9,\ c=13{\cdot}85_7\ \text{Å},\ Z=4,\ P2_1ab.$$

The angles between the plane of the benzene ring and those of the two carboxyl groups are 31·7 and 75·4° respectively.

The direction cosines of the molecular axes *L*, *M* and *N* are:

	a	*b*	*c*
L	0·1609	0·4349	0.8858
M	0·5148	−0·8029	0·3006
N	−0·8399	−0·4111	0·3543

Thus the molecular susceptibilities and anisotropy are:

$K_L=-\ 73{\cdot}92\pm0{\cdot}10$
$K_M=-\ 79{\cdot}12\pm0{\cdot}13$ $\qquad \Delta K=68{\cdot}27\pm0{\cdot}12$
$K_N=-144{\cdot}79\pm0{\cdot}08$

The variances in the crystal magnetic susceptibilities and the resulting probable errors in the molecular susceptibilities and anisotropies were calculated by the method given for orthorhombic crystals by Lasheen & Tadros (1968) and for monoclinic crystals by Walley (1967).

Reference

LASHEEN, M. A. (1969). *Acta Cryst.* A**25**, 581.

Acta Cryst. (1970). A**26**, 681

The multiple-film technique: the effect of angle of incidence on the absorption of Co *Kα* radiation by X-ray film.

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Film absorption factors of Ilford Industrial G X-ray film for Co *Kα* radiation have been determined over a range of angles of incidence.

Experimental data for the variation of the film absorption factor, *R*, with angle of incidence for Cu *Kα* radiation have been given by Bullen (1953) and Grenville-Wells (1955). These authors assumed that this variation could be ex-