calculated and were put on an absolute scale by comparing with some of the (*h*0*l*) planes whose structure factors were given by Sen (1948).

The intensities with the corresponding structure factors were divided into groups of different $\sin\theta$ range and Wilson's ratios ($\varrho = (\langle|F|\rangle)^2/\langle I\rangle$) for the respective groups, and Rogers' $N(z)$ values for different values of Z were obtained. A weighted average of all these $\sin\theta$ groups was taken in the usual manner.

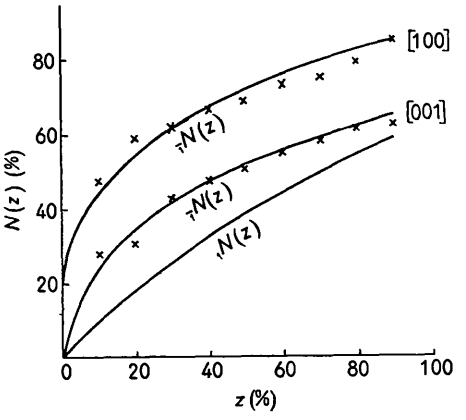

Fig. 1. $N(z)$ values for the [100] and [001] projections of anthraquinone. Successive $\bar{1}N(z)$ curves are displaced 20% vertically.

The weighted $N(z)$ averages are plotted in Fig. 1. The continuous curves are the theoretical ones.

Results

From the above, Wilson's ratio for the (*hk*0) projection was found to be 0·610 and for the (0*kl*) projection it was 0·587. These values agree reasonably well with the theoretical value of $2/\pi = 0{\cdot}636$ for the centrosymmetric case. From the figure it is clearly observed that the experimental values of $N(z)$ agree very well with the theoretical curve for the centrosymmetric case. Thus the existence of the centre of symmetry necessary for the space group $P2_1/a$ is definitely established.

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Short Communications

Contributions intended for publication under this heading should be expressly so marked; they should not exceed about 500 words; they should be forwarded in the usual way to the appropriate Co-editor; they will be published as speedily as possible; and proofs will not generally be submitted to authors. Publication will be quicker if the contributions are without illustrations.

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Lattice constants of rubidium and cesium iron alums.

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Several years ago, during a study of iron alums, precision lattice-constant determinations were made on rubidium and cesium iron alums at 25±0·1° C. Since these data may be of interest to some investigators they are being briefly reported at this time. Details of the X-ray techniques used in these determinations have been described earlier (Klug & Alexander, 1940). The lattice constants reported below are the mean of six and four values respectively, together with the average deviation of a single result from the mean.

$RbFe(SO_4)_2.12H_2O$: $a = 12{\cdot}3229 \pm 0{\cdot}0005$ Å.
$CsFe(SO_4)_2.12H_2O$: $a = 12{\cdot}4299 \pm 0{\cdot}0004$ Å.

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