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The crystal structure of 1.3.5-triphenylbenzene: correction.

By M. SHEHATA FARAG, *Department of Crystallography, University College, London W.C. 1, England*

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In the above paper (Farag, 1954) a reference is wrongly given on pp. 120–121. Bastiansen (1952) (not Bastiansen & Hassel) has found the average C–C distance in the ring to be 1·40 Å and between rings to be 1·52 Å, the measurements being made by electron-diffraction methods for the vapour. These agree well within limits of experimental error with the X-ray measurements on the solid, although the angles of twist of the planes of the rings are considerably greater for the vapour than for the solid.

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Further complexities in the lamellar structure of alkali felspars.

By J. V. SMITH and W. S. MACKENZIE, *Geophysical Laboratory, Carnegie Institution of Washington, Washington, D.C., U.S.A.*

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Spencer (1937) made a detailed optical, chemical and thermal study of a series of alkali felspars. Many of these specimens were examined by Chao, Smare & Taylor (1939) and by Chao & Taylor (1940), using single-crystal X-ray methods. We have re-examined a number of these specimens.

Chao & Taylor (1940) found that Spencer's specimens *D*, *E* and *F* had a pericline-twinned soda phase, whereas specimens *I*, *J*, *K*, *M* and *R* had an albite-twinned soda phase. The cell angles of the albite-twinned soda phase were found by Chao & Taylor to correspond with those of low-albite, but those of the pericline-twinned soda phase did not agree with those of low-albite. When the existence of a high-temperature form of albite was established by Tuttle & Bowen (1950) and its cell angles were measured by Laves & Chaisson (1950), Taylor (personal communication, 1951) suggested that the pericline-twinned soda phase was high-albite.

Laves (1952*a*, *b*) studied the X-ray photographs of several cryptoperthites and stated, 'It was observed that all specimens with 'exsolved' albite showed albite twin relations, whereas those with 'exsolved' analbite† showed pericline twin relations. The different lattice constants of albite and analbite may well be responsible for the differing twin relations'.

Two of Spencer's specimens, *O* and *N*, not previously studied by X-ray methods, have revealed further complexities in the lamellar structure of the alkali felspars. Specimen *O* consists of a monoclinic potash phase and four individuals of a soda phase, two twinned according to the pericline law and two according to the albite law. The following angles were measured for the two twin laws:

pericline: $\alpha^* = 86^\circ\,48'$, $\gamma^* = 90^\circ\,15'$;
albite: $\alpha^* = 86^\circ\,45'$, $\gamma^* = 90^\circ\,13'$;
(all $\pm 5'$).

These angles are close to those of low-albite and differ appreciably from those of high-albite. This specimen shows that high-albite cannot be identified in a perthite merely from the presence of pericline twinning. Also, examination of some sanidine-cryptoperthites which have a soda phase twinned according to the pericline and albite laws shows that low-albite cannot be identified merely from the presence of albite twinning of the soda phase. *To obtain a positive identification of the type of albite present in a micro- or cryptoperthite the cell angles must be measured.*

Specimen *N* consists of three phases, a monoclinic (or very nearly monoclinic) potash phase, a triclinic potash phase and an albite-twinned soda phase. The soda phase has angles $\alpha^* = 86^\circ\,48'\pm 5'$, $\gamma^* = 90^\circ\,33'\pm 5'$, which are close to those of low-albite. The triclinic potash phase consists of two individuals not related by either albite or pericline twinning and with $\alpha^* = 90^\circ\pm 30'$, $\gamma^* = 92^\circ\,42'\pm 6'$, which are close to the angles of microcline (Laves, 1950). The two triclinic phases are such that the b^* axes of the potash phase are symmetrical about the common b^* axis of the soda phase and the a^* axes of the potash phase are symmetrical about the a^* axis of the soda phase. The orientation of the monoclinic potash phase is not simply related to the orientation of the triclinic potash phase. This should be contrasted with the relation found between the monoclinic and triclinic potash phases in a felspar from the Bearpaw Mountains, Montana, recently described by MacKenzie (1954).

A simple but accurate method has been developed for the determination of α^* and γ^* for albite- and pericline-twinned phases from *b*-axis oscillation photographs. The estimated accuracy is 5'.

These conclusions have been confirmed by measurements on other specimens. Full details will be given in a later paper.

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† 'Analbite' is the term used by Laves for high-temperature albite.

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