(pers. comm.) has pointed out that this portion of the procedure is incorrect, and it is here suggested that the method described by Hartshorne and Stuart (pp. 417-419, 1960) be used to determine the initial orientation of the three principal optical directions. Using the plotted orientations as a guide, the crystal may be put into the cardinal position in the following manner. One principal optical direction is first oriented horizontal and EW by appropriate rotations about the IV and NS axes. The crystal is then brought into the cardinal position by appropriate rotation about the EW axis. It is not necessary to utilize either the outer vertical or microscope axis for this procedure. From this orientation, reference to table I (ibid., 1966) indicates the rotations necessary to bring the crystal into the Berek position. The technique may be used most effectively on the 3 -axis stage.
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## References

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## Amesite from the silver mines of Hällefors, central Sweden

Amesite occurs in the silver mines of Hällefors as short hexagonal prisms with arsenopyrite in zinc ore. The chemical composition is: $\mathrm{SiO}_{2}$ $34 \cdot 74 \%, \mathrm{Al}_{2} \mathrm{O}_{3} 15 \cdot 80$, $\mathrm{FeO} 3 \cdot 15$, $\mathrm{MnO} 0 \cdot 13$, $\mathrm{MgO} 32 \cdot 81$, CaO tr., $\mathrm{H}_{2} \mathrm{O}$ $13 \cdot 13$, sum $99 \cdot 76 \%$; sp. gr. $2 \cdot 65, \alpha 1 \cdot 578$. A detailed description will be included in a forthcoming publication on the minerals of the silver mines.

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