

(400 and 240) that are not sharply separated in d values, as they are in the case of the Buranga sample. In the latter the most intense peak is at $d=3.09$ coming from three planes (040, $11\bar{2}$, $23\bar{1}$); diffraction from these appears as two separate peaks on the chart from the Hagendorf sample. Similarly single peaks from planes numbers 17 and 24 for the Buranga sample each appears as triple peaks from the Hagendorf material. Many peaks representing spacings less than 2.00 that could not be distinguished from background on the Buranga chart were significant on the Hagendorf record.

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REPLY TO PROF. D. J. FISHER

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I welcome Prof. Fisher's note; it emphasizes the continuing problem of nomenclature of the orthophosphates of manganese and iron. I have explicitly employed the name *hühnerkobelite* (= Fisher's ferroan-alluaudite) in consonance with its use in Palache *et al.* (1951) and as implied by the given composition in Strunz (1957). In particular, I feel that Palache *et al.* (1951) shall continue to be the most frequently used source of mineral nomenclature and I shall strive, at least where applicable, to use their proposed terminology.

In Table 1 of Fisher (above), note that "G," Palermo hühnerkobelite,

is also very similar to "D," the Norrö material. It is this Norrö material which is the closest to true hühnerkobelite as defined by Palache *et al.* (1951, p. 668). The "type" hühnerkobelite, no. 12 in the diagram of Fisher (1957), is actually an alluaudite as pointed out by him, and to be consistent with their nomenclature, Palache *et al.* should have placed it under that specific heading. However, I do not feel that hühnerkobelite must be discredited because the "type" material was shown to be an alluaudite, since we have two representatives of the Fe^{2+} predominant material—those from Norrö and Palermo Mine. In Palache *et al.* (1951, p. 669), it is explicitly stated that hühnerkobelite is a phosphate of sodium, calcium, divalent iron and divalent manganese, and applied to that part of the series with $\text{Fe} > \text{Mn}$.

Hyphenated prefixes are used for fields in Fisher's (1957) nomenclature of the alluaudites which could easily be related to the endmembers as stated in Palache *et al.* (1951), *i.e.*, hühnerkobelite (Fe^{2+} predominant), varulite (Mn^{2+} predominant), and alluaudite (Fe^{3+} predominant). Mangan-alluaudite is, in effect, a ferric-rich varulite and deserves only varietal status.

Indeed, Prof. Fisher's work on these minerals is extensive and has contributed much to the understanding of them. But, as yet, I don't see the need to abandon the nomenclature employed in Palache *et al.* (1951).

I suggest that these mineral names be reviewed by the International Committee on Mineral Names.

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