

Within the last few years I have discovered another locality in Cornwall, Penberthy Croft Mine, St. Hilary, where in a cavity in some decomposed, 'gossany' quartz-galena veinstone I found two small but well-defined prismatic crystals of phosgenite, associated with anglesite, on decomposed galena. The crystals of phosgenite are pale wine-yellow in colour, and of long prismatic habit, the larger of the two being about 8 mm. long and 2 mm. thick: both show well-developed terminal faces of $c(001)$ and several small faces in the pyramid and prism zones, but the latter are in general very striated, with many small vicinal faces, and owing to the positions of the crystals in the cavity it is difficult to make out what most of the faces are.

A second occurrence has also been identified, in Cumberland, from the outcrop of the main Driggith-Sandbed vein near Caldbeck, in an old opencast between the two mines: here colourless phosgenite has been found with anglesite in somewhat decomposed, massive granular galena.

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¹ Min. Mag., 1927, vol. 21, p. 221.

New occurrences of rosasite in Britain.

ROSASITE, $(\text{Cu,Zn})_2\text{CO}_3(\text{OH})_2$, was first described from the Rosas Mine, Sulcis, Sardinia, and has since been recorded from several localities in the U.S.A., at Tsumeb in South-West Africa, and in northern Turkestan. It is probably the zinc-rich end member, with Cu:Zn near 3:2, of an isostructural series with malachite, the X-ray powder-patterns being similar but with different spacings and quite distinct. It is possible that the series is continued farther in the zinc-rich direction, towards aurichalcite, $(\text{Zn,Cu})_5(\text{CO}_3)_2(\text{OH})_6$, but that with Zn becoming predominant over Cu there is a change of lattice to orthorhombic.

Though a likely mineral to be found at several localities, rosasite has not so far been reported in Britain, but we are now able to record no less than seven occurrences. In the Lake District, at Driggith Mine, Caldbeck (12- and 30-fathom levels); Sandbed Mine, Caldbeck (Upper level); Roughtongill Mine (outcrop of the south vein and 60-fathom level); Silvergill Mine (Middle level, on north vein); a copper vein near Potts Gill, Caldbeck; Tongue, or Ruthwaite Lodge, vein, Grisedale Mines, Patterdale; at all these localities the rosasite generally forms small bluish-green wart-like aggregates, though the colour may vary from

malachite-green to pale blue, its usual associates being smithsonite, hemimorphite, malachite, aurichalcite, and the ill-defined zinc-bearing varieties of malachite referable to 'paraurichalcite' or 'cuprozincite', which are very similar. In Cornwall, one of us (A. W. G. K.) has found rosasite at Penberthy Croft Mine, St. Hilary, associated with malachite and native silver in a much decomposed veinstone.

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Carpholite from Cumberland and Cornwall.

THE rare manganese aluminium silicate, carpholite, hitherto only recorded from a few foreign localities, has been recently found by us in Cumberland and in Cornwall.

In Grains Gill, Carrock Fell, in the northern Lake District, carpholite occurs in thin, fibrous-radiating aggregates in joints in white vein-quartz, specimens collected being derived almost certainly from the Emerson vein of the Carrock Wolfram Mine. In contrast to its more usual deep straw- or wax-yellow colour, the Grains Gill mineral is of a pale, almost cream yellow, and until the quartz is broken appears merely as a faint yellowish staining.

Carpholite, again pale in colour, has also been found by one of us at three localities in Cornwall: in an old opencast on Kit Hill, and (of a slightly greenish colour) in material from the south workings of Hingston Down Consols Mine, both these localities being near Callington, and at Stennagwynn Mine, St. Stephen-in-Brannel; at the two former it occurs in joints in greisen, while at Stennagwynn it also coats joints in altered granite and closely resembles wavellite, for which this mine is one of the few known Cornish localities.

X-ray powder-photographs are all in agreement with that of carpholite from Schlaggenwald, Bohemia.

At all the above-mentioned new localities the carpholite occurs in association with wolfram.

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