

barium, procured by the double decomposition of the neutral salt of potash, and the chloride of barium and nitrate of lead; the barytic salt was converted by calcination into carbonate, and the salt of lead into sulphate. Four operations carefully conducted gave 4153·895 as the mean atomic weight of the digitoleic acid.

The salt of lead consists of—

Digitoleic acid. . . .	74·866
Oxide of lead	25·134
	<hr/> 100·000

and the barytic salt is composed of—

Digitoleic acid	81·28
Barytes	18·72
	<hr/> 100·00

Several salts of the new acid were prepared and examined by M. Kosmann.

Digitoleate of Potash.—The acid was treated cold with bicarbonate of potash and water; the solution is slowly effected, but takes place in a few hours with the slow disengagement of carbonic acid; the filtered solution was evaporated to dryness by the water-bath, and the residue tested with cold alcohol of 85 per cent., which dissolved the potash-soap; the alcoholic solution filtered and evaporated left a greenish-brown residue, which became a confused crystalline mass intermixed with needles, the odour of which was aromatic, and the taste bitter and acrid; it does not effervesce with acid, and yields by the action of heat an odorous matter and carbonate of potash. The aqueous solutions froth like soaps.

Digitoleate of Soda.—This salt was prepared like the preceding, with bicarbonate of soda; the alcoholic solution left by evaporation a scaly mass of a brownish-green colour, without any trace of crystallization; the aqueous solution, frothed by agitation, does not effervesce with acid, and has a bitter acrid taste. This soap is soluble in æther, and by the action of heat emits an odorous vapour, and yields a residue of carbonate of soda.

Digitoleate of Morphia was prepared by the double decomposition of digitoleate of potash and acetate of morphia. The properties of this salt are, that it is a greenish precipitate, which adheres strongly to the sides of the vessel. After repeated washing, it was treated with alcohol, which dissolved it and formed a bright green solution, that deposited by slow evaporation fine flattened rectangular prisms with square bases, the colour of which was greenish with a metallic lustre; they were insoluble in water.—*Journ. de Chimie Médicale*, June 1846.

ON A REMARKABLE FELSITE FROM MARIENBERG.

BY A. BREITHAAPT.

This felsite occurs in veins of tinstone, traversing gneiss at Martsberge, and at Wilsberge near Marienberg in Saxony, accompa-

nied by quartz, which appears to be a more ancient formation, and tinstone, which is more recent. It was long taken for brown spar (dolomite), for it is red or reddish-white in crystals, and presents in its combinations P, x, T, and L, so that the last three forms, with nearly equally extended surfaces, resemble a rhombohedron.

Freshly broken, the crystals are semi-transparent, cleavage rectangular, in the direction of the faces P and M; hardness $7\frac{3}{4}$ (of Breithaupt's scale); specific gravity 2·441 to 2·445.

Decomposed by hydrofluosilicic acid, M. Kröner obtained as its chemical composition,—

Silica	66·43
Alumina	17·03
Oxide of iron	0·49
Potash	13·96
Soda	0·91
Lime	1·03
Magnesia and manganese. .	traces

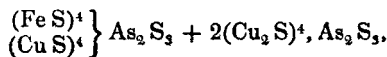
Poggendorff's *Annalen*.

CHEMICAL ANALYSIS OF COPPER BLENDE. BY C. F. PLATTNER.

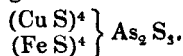
Breithaupt's copper blende has recently been said to be identical with tennantite. The former however is distinguished by its red streak and lower specific gravity. In tennantite from Cornwall, Kudernatsch found—

Sulphur	27·76
Arsenic	19·10
Copper	48·94
Iron	3·57
Silver	trace
Quartz	0·08
	<u>99·45</u>

The chemical formula for which is—



or more simply, according to M. Frankenheim,



Copper blende from the Prophet Jonas Mine, Freiberg, I found to contain—

Sulphur	28·111	201·16 = 0·139	= 139
Arsenic	18·875	470·04 = 0·040	= 40
Copper	41·070	395·69 = 0·104	= 104
Zinc	8·894	403·23 = 0·022	} = 29
Iron	2·219	339·21 = 0·007	
Lead	0·341		
Antimony and silver. .	<u>traces</u>		
	99·510		