



On the action of oxalic acid on the sulphates of iron and copper

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which accords with the formula $S O^3, K O + S O^3, C^{64} H^{64} + H^2 O$.

They have also obtained a compound of chlorine and cetene by distilling together ethal and perchloride of phosphorus; the hydrochlorate of cetene is composed of

Carbon	73.67	=	C^{64}
Hydrogen ..	12.32	=	H^{66}
Chlorine	13.70	=	Ch^3

These chemists consider spermaceti as a compound of margarate and oleate of cetene, in the proportions of

- 2 eqs. margaric acid,
- 1 eq. oleic acid,
- 3 eqs. of cetene,
- 3 eqs. of water,

and give the following extraordinary formula, founded on an analysis of Chevreul: 472 eqs. of carbon, 445 eqs. of hydrogen, and 14 eqs. of oxygen.—*L'Institut*, May 4th.

VOLATILE OIL OF THE BARK OF THE PRUNUS PADUS.

This oil is a hydruet of benzule analogous to oil of bitter almonds: it affords by analysis

Carbon	79.34	=	14 eqs.
Hydrogen . .	5.68	=	6 eqs.
Oxygen ..	14.98	=	2 eqs.

100.00

M. Löwig observes that when this oil is placed in contact with potassium on mercury, the potassium darts rapidly about and soon disappears, the oil becomes deeper-coloured and at last viscid without any visible disengagement of gas.—*Ann. de Chimie*, March, 1836.

ON THE ACTION OF OXALIC ACID ON THE SULPHATES OF IRON AND COPPER.

When a concentrated solution of oxalic acid is poured into one of protosulphate of iron, the liquid assumes a yellow colour, and precipitates after standing for some time. This precipitation does not occur in a solution of the persulphate by the addition of oxalic acid; and in general ferruginous salts are not precipitated either by oxalic acid or by oxalate of ammonia.

These phenomena have already been noticed by M. A. Rose; but M. Vogel of Munich wishing to know whether the decomposition was complete or only partial, instituted a series of experiments, from which he concludes that oxalic acid entirely decomposes the sulphates of iron and copper, setting at liberty the whole of the sulphuric acid, its affinity for these oxides being greater than that of even sulphuric acid. The oxalate of iron obtained is a yellow powder almost insoluble in water, which when heated to redness in a closed vessel leaves a residue of protoxide and car-

buret of iron. The oxalate of copper is a blue powder insoluble in water, which heated to redness affords metallic and protoxide of copper.—*Jour. de Pharm.*, April, 1836.

LOCALITY OF NATIVE MERCURY.

M. de Bonnard has communicated to the Philomathique Society of Paris, a notice by M. Alluaud, sen. of Limoges, respecting the mercury of Peyrat-le-Chateau, department de la Haute-Vienne.

This metal is found in the native state in a disintegrated granite, which forms the esplanade of the ancient castle of Peyrat, on the side of the royal road from Figeac to Montargis. M. Alluaud describes the nature of the soil of the country, which is entirely formed of various kinds of granite passing into each other, as kaolen and gneiss, &c. On the esplanade of the castle of Peyrat, M. Ranque, in clearing the soil and digging the foundation of a house, found twelve pounds of native mercury, and other persons also found some. M. Alluaud having made several excavations and also examined the places, found the mercury disseminated in a fine-grained granite, which was very quartzose, and the felspar was decomposed. The metal does not exist throughout the rock, but only in parts of it; no bed, vein, or fissure can be perceived. The metal has been found at several distinct places, far from each other and without any communication; this circumstance is unfavourable to the idea of an accidental infiltration from above, for in this case the metal would have occupied a circumscribed situation in some fissure of the rock.

Notwithstanding the singularity of this locality of native mercury in a primary rock which contains no indications of cinnabar, and difficult as it is to draw a conclusion from an isolated observation confined to the narrow space of a few feet, M. Alluaud does not hesitate to pronounce either that the mercury is disseminated in the rock in small masses, irregular both as to form and extent, and in this case that the deposit has been contemporaneous with the formation of the rock; or that it occupies fissures in the rock, which are now imperceptible, into which it was subsequently conveyed by sublimation from the interior of the earth.—*L'Institut*, No. 160.

DONIUM, A NEW METAL CONTAINED IN DAVIDSONITE.

This mineral was discovered by Dr. Davidson of Aberdeen, in a granite quarry in the neighbourhood of that city; it has been examined by Mr. Thomas Richardson, and he concludes that he has obtained from it a metal which differs from any previously known.

“From the alkaline and earthy bases, and from several of the metallic ones, it is eminently distinguished by the green precipitate which it gives with sulpho-hydrate of ammonia; while its solubility in the caustic alkalies, and in carbonate of ammonia, the light brown precipitate thrown down by sulphuretted hydrogen, and the green given by sulpho-hydrate of ammonia, are amply sufficient to distinguish it from all the others.