

XXXVII.—ON THE EFFECT OF CHANGE OF DENSITY IN ALUM PURPURINE SOLUTIONS ON THE ABSORPTION BANDS.

(Abstract of a Paper read before the AMERICAN CHEMICAL SOCIETY, Sept. 9th, 1880.)

BY HENRY MORTON, PH.D.

The phenomenon noticed in this paper was the displacement of the maxima of absorption in solutions of purpurine in alum-water.

- 1st. With changes in amount of alum.
- 2d. With changes in temperature.
- 3d. With change in the alum salt used, *i. e.*, ammonia, potash or soda alum, or sulphate of alumina.

The character of these changes was as follows :

Greater amount of "alum" in the solution carried the maxima downwards in the spectrum.

A higher temperature likewise had the same effect, as also had a greater molecular weight in the alum salt employed.

These results are in remarkable accordance with those noticed by the writer in the salts of uranium.*

Abstracts from American and Foreign Journals.

Bulletin de la Société Chimique de Paris

Abstractor, E. H. S. BAILEY, Ph.B.

On Persulphuric Acid; its Formation by Electrolysis, BERTHELOT (33, 242).—A further study of this acid, discovered in 1878 by the author. It is formed by electrolysis by placing dilute sulphuric acid in a porous vessel, which in turn is surrounded by another vessel containing the same liquid. The whole is kept cool by a serpentine coil, through which water flows. Platinum electrodes are employed, and a current from 6 or 9 Bunsen cells. The persulphuric acid is formed at the positive pole. Water passes through the porous cup more rapidly than the acid. At a later stage of the operation, as the acid becomes more concentrated, and hence presents greater resistance, it seems to be acted upon by the electric current, forming hydric peroxide. The fact that this latter gradually disappears may probably be accounted for by the well-known action of concentrated sulphuric acid upon it.

* See *Chemical News*, 28, 47, 113, 164, 233, 244, 257, 268.