

XV.—*On the Perbromates.* Preliminary Notice.

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THE salts of perchloric and periodic acid have been pretty fully examined, but no chemist seems to have given more than a passing attention to those of perbromic acid. It seems to me that a careful study of the perbromates may reveal many points of interest concerning the relationship of the three oxygen acids of chlorine, bromine, and iodine. I have, therefore, undertaken the preparation of a number of these salts, and I

hope soon to lay the results of this investigation before the Society, premising, meanwhile, that an aqueous solution of perbromic acid is easily obtained by the action of bromine on the hydrate of perchloric acid dissolved in water, and that this solution, when neutralised with caustic potash, deposits crystals of potassium perbromate. This salt, which is with difficulty soluble in cold water, crystallises in forms isomorphous with those of the perchlorate and periodate. When a solution of the potassium salt in water is mixed with an aqueous solution of barium chloride and alcohol added, crystals of barium perbromate are slowly deposited.

In like manner, if the aqueous solution of the potassium salt is mixed with copper sulphate solution and the liquid evaporated to a small bulk, copper perbromate separates out in the form of a pale green powder.

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