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The Action of Certain Oxidizing Agents in Sulfite and Its Determination

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odor is not observed. It is possible that the failure of rats on diets containing certain samples of cod liver oil may be due to one or more of the following factors.

1. A decreased consumption of the diet due to this decomposition product.
2. A destruction of vitamin A which runs parallel with the destruction of the cod liver oil.
3. Certain samples of cod liver oil are not as rich in vitamin A as supposed heretofore.

IOWA STATE COLLEGE.

SOME DOLOMITES

NICHOLAS KNIGHT

(ABSTRACT)

We have continued the study of so-called dolomite rocks from different localities to learn the variation in the composition of such rocks. One specimen from a deep well boring at Mason City, Iowa, that was supposed to be limestone proved to be nearly a typical dolomite. The composition of the fifteen specimens we have examined, corresponds to our past experience, that specimens of rock called dolomites vary in rather wide limits.

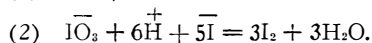
DEPARTMENT OF CHEMISTRY,
CORNELL COLLEGE.

THE ACTION OF CERTAIN OXIDIZING AGENTS ON SULFITE AND ITS DETERMINATION

W. S. HENDRIXSON

(ABSTRACT)

The oxidation of sulfite in acid solution by dichromate, bromate and permanganate was found to be incomplete, the oxidant used being several per cent short of that required in each case to change sulfite ion completely into sulfate ion. This is probably due to the formation of dithionate, which is not further oxidized. Iodate behaves very differently. These reactions occur at some state of the action:



Reaction (1) is slow; (2) very slow at the beginning, but quickly increasing its speed as I accumulates; (3) is practically instantaneous. It follows that after the first 3 or 4 drops of sulfite are added to acidified iodate, the reduction goes on by reactions (2) and (3), iodine being permanently present till the end. Hence the titration is virtually one of sulfite by free iodine, and the results are just as accurate. Complete oxidation to sulfate is also secured by using bromate instead of iodate if one adds as much as one-sixth an equivalent of iodide. Adding bromide with the bromate is without effect.

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MICROSTRUCTURE OF PAINT FILMS

H. L. MAXWELL
(*ABSTRACT*)

Methods of preparing paint films for microscopic examinations are discussed. The general effect of composition on pigment distribution is outlined. The distribution of pigment particles in the film is determined by selected stains and illustrated by photomicrographs. Lantern is used.

DEPARTMENT OF CHEMISTRY,
IOWA STATE COLLEGE.

CONDENSATIONS WITH ALKYLENE BROMIDES

H. F. LEWIS AND CHARLES FORDYCE
(*ABSTRACT*)

Various butylene bromides were condensed with aniline and the products of reaction studied. Among the products were the corresponding butylenes, the substituted diphenyl-ethylene-diamines and other products of unknown composition. The report given was merely a preliminary report. Other aromatic amines were used, notably the 1-aminoanthraquinone and the 2-aminoanthraquinone.

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