

3461

**Dissociation Constants of Hexosephosphoric Acids.**

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Hexosediphosphoric acid from yeast and hexosemonophosphoric acid from muscle (lactacidogen) were kindly made available from preparations by Professor Embden. Electrometric titration showed both stronger than pure phosphoric acid in the region of the first and, more conspicuously, in that of the second dissociation constant. In each case hexosemonophosphoric acid was the stronger.

From titration data with pure phosphoric acid a second constant at 18 degrees of  $pK_2$  equals 6.82 was calculated, agreeing with the usual values given.

For hexosemonophosphoric acid the value similarly determined gave  $pK_2 = 6.12$ .

For hexosediphosphoric acid only an apparent value of the constant corresponding to the actual third and fourth together was determined at  $pK_2 = 6.25$ , corresponding with the value of Meyenhof and Suranyi of  $pK_2$ , 6.2.

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3462

**Influence of Thyroid and Insulin Treatment on Lactacidogen Synthesis in Muscle.**

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Rabbits fed with 0.9 grams of dried thyroid tablets daily, with an abundant diet, showed rapid emaciation, followed by death in an exhausted state after 1 to 4 weeks. The muscle brei from such animals shows a great reduction, or almost complete failure of the ability to cause the disappearance of inorganic phosphoric acid under the

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