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The differentiation and specificity of starches in relation to genera, species, etc.: stereochemistry applied to protoplasmic processes and products, and as a strictly scientific basis for the classification of plants and animals.

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Under the foregoing title the results of an elaborate investigation will shortly appear as Publication No. 173 of the Carnegie Institution of Washington. This research is supplementary and complementary to, and in support of, Publication No. 116 entitled, "The Differentiation and Specificity of Corresponding Proteins and Other Vital Substances in Relation to Biological Classification and Organic Evolution: The Crystallography of Hemoglobins." A preliminary review of the latter will be found in the PROCEEDINGS of the Society, 1908, V, 66–68.

Studies of the histological, physical, physico-chemical and chemical properties of over 300 starches from various plant-sources were made. Among the most important conclusions reached are the following:

1. Starch is not a unit substance but exists in a vast number of stereoisomeric forms. Starch from any given plant and of every mature starch grain is a mixture of different forms of starch-substance.

2. Starches from different plants exhibit constant and specific characters in relation to genera, species and varieties, by which the plant can be identified.

3. The stereochemic peculiarities of starches and other complex organic metabolites constitute *a strictly scientific basis for the classification of plants and animals.*