Plant starch can be analysed and modified, with chapters on plant starch synthesis, starch ingredients used to improve the nutritional and sensory quality of food. Part one illustrates how starch is both a major component of plant foods and an important ingredient for the food industry. Program of Work of the United States Department of Agriculture and Inspection Service.

Methods of Analysis of Food Components and Additives, Second Edition

This work provides up-to-date information on the various analytical procedures involved in both nutrition labelling and the identification and quantitation of hazardous chemicals in foods. It assesses the relative strengths of traditional and modern analysis techniques. The book covers all mandatory dietary components and many optional nutrients specified by the new labelling regulations of the Food and Drug Administration and the US Department of Agriculture Food Safety and Inspection Service.

Methods of Analysis of Food Components and Additives covers recent advances as well as established methods in a concise guide, presenting detailed explanations of techniques for analysis of food components and additives. Written by leading scientists, many of whom personally developed or refined the techniques, this reference focuses primarily on methods of food analysis and novel analysis instruments. It provides readers with a survey of modern analytical instruments and methods for the analysis of food components, additives, and contaminants. Each chapter summarizes key findings on novel analysis methods, including the identification, speciality, and determination of components in raw materials and food products. The text describes the component or additive that can be analyzed, explains how it works, and then offers examples of applications. This reference covers selection of techniques, statistical assessments, analysis of drinking water, and rapid microbiological techniques. It also describes the application of chemical, physical, microbiological, sensorial, and instrumental novel analysis to food components and additives, including proteins, peptides, lipids, vitamins, carotenoids, chlorophylls, and food allergens, as well as genetically modified components, pesticide residues, pollutants, chemical preservatives, and radioactive components in foods. The Second Edition contains three valuable new chapters on analytical quality assurance, the analysis of carbohydrates, and natural toxins in foods, along with updates in the remaining chapters, numerous examples, and many new figures.