Special Issue

The Structural Properties, Modifications, and Nutritional Applications of Starch

Message from the Guest Editors

Starch is an important carbohydrate with widespread applications in human food, animal feed and many industrial products. It is synthesized in higher plants as insoluble semicrystalline granules assembled by amylose and amylopectin. The variations in starch structure among different plant species affect the physicochemical properties and end-use functions of starch. The demand for starches with particular nutritional properties is increasing, but the ability to produce novel starches is still limited. Starches with specific nutritional properties can be obtained by chemical/physical/enzymatical/genetic modifications. However, this requires further understanding of the structure-nutritional properties relationships of starch. A better understanding of these relationships provides direction for starch modification and targeted programs to produce starch with desired characteristics. This special issue focuses on the roles of starch modification for enhanced nutritional outcomes through lowing the digestion rate/extent or interactions with gut microbiome.

Guest Editors

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Deadline for manuscript submissions

closed (31 January 2023)



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Message from the Editor-in-Chief

Foods (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, Foods has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

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