DESCRIPTION

Food Hydrocolloids publishes original and innovative research concerned with the characterisation, functional properties and applications of hydrocolloid materials used in food products. Hydrocolloids are defined as polysaccharides and proteins of commercial importance that are added to food products to control, for example, the texture, stability, rheology and sensory properties. The key focus of the research should be on the hydrocolloids themselves. The source and nature of the hydrocolloid materials should be fully described and details of their physicochemical characteristics provided. Manuscripts should clearly outline the specific aims and objectives of the research and must include a fundamental discussion of the research findings at the molecular level and their significance. Manuscripts that simply report data without providing a detailed interpretation of the results will not be accepted for publication in the journal. Studies on hydrocolloids in complex formulations should focus on their influence on the overall properties and their mechanism of action. Simple formulation development studies that primarily aim to optimize proportions of mixed ingredients and/or processing conditions to enhance formulated product properties will not be considered for publication.

The main areas of interest are: Chemical and physicochemical characterisation of hydrocolloid materials The rheological properties of hydrocolloid solutions including viscosity, viscoelastic properties and gelation behaviour The influence of hydrocolloids on food microstructure, texture and organoleptic properties The interfacial properties of hydrocolloids including stabilisation of dispersions, emulsions and foams Interactions in mixed hydrocolloid systems including phase behaviour, complexation and conjugation The film forming properties of hydrocolloids with application in edible films, coatings and active packaging The function and performance of hydrocolloids in 3D printing formulations for food applications The encapsulation and controlled release of active compounds for inclusion in food formulations The modification of hydrocolloid functionality through chemical, biochemical and physical processes The physicochemical characteristics and application of hydrocolloid materials from non-traditional sources with commercial potential in foods Health aspects, particularly the role of hydrocolloids as dietary fibre

Manuscripts that deal with the use of hydrocolloids in medical settings such as encapsulation of drugs, wound dressings and tissue engineering or research involving animal studies will not be considered for publication in Food Hydrocolloids. Such work would be more appropriate for publication in Food Hydrocolloids for Health. This is an open access companion Journal devoted to hydrocolloids applied in human health and nutrition.

The Food Hydrocolloids Journal publishes Review articles that provide a focussed overview of the latest developments in emerging topics of specific interest to researchers in this field of activity.
AUDIENCE

Food scientists and technologists, R&D managers, concerned with the application of science in the use, development and manufacture of food hydrocolloids.

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INTRODUCTION

Food Hydrocolloids only publishes original and novel research that is of high scientific quality. Research areas include basic and applied aspects of the characteristics, properties, functionality and use of macromolecules in food systems. Hydrocolloids in this context include polysaccharides, modified polysaccharides and proteins acting alone, or in mixture with other food components, as thickening agents, gelling agents, film formers or surface-active agents. Included within the scope of the journal are studies of real and model food colloids - dispersions, emulsions and foams - and the associated physicochemical stability phenomena - creaming, sedimentation, flocculation and coalescence.

In particular, Food Hydrocolloids covers: the full scope of hydrocolloid behaviour, including isolation procedures, chemical and physicochemical characterization, through to end use and analysis in finished food products; structural characterization of established food hydrocolloids and new ones ultimately seeking food approval; gelling mechanisms, syneresis and polymer synergism in the gelation process; rheological investigations where these can be correlated with hydrocolloids functionality, colloid stability or organoleptic properties; theoretical, computational or simulation approaches to the study of colloidal stability, provided that they have a clear relationship to food systems; surface properties of absorbed films, and their relationship to foaming and emulsifying behaviour; phase behaviour of low-molecular-weight surfactants or soluble polymers, and their relationship to food colloid stability; droplet and bubble growth, bubble nucleation, thin-film drainage and rupture processes; fat and water crystallization and the influence of hydrocolloids on these phenomena, with respect to stability and texture; direct applications of hydrocolloids in finished food products in all branches of the food industry, including their interactions with other food components; and toxicological, physiological and metabolic studies of hydrocolloids.

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