Special Issue

Essential-Oil-Based Nanoformulations: An Efficient Technology to Boost the Antimicrobial Potential of Plant Essential Oils in Food Systems

Message from the Guest Editors

With the rising concerns about the safety of food additives pushing the “clean label” trend forward, natural ingredients such as food-grade essential oils are increasingly used not only for their flavouring but also for their antimicrobial properties. However, the amount of essential oils necessary to inhibit the growth of unwanted microorganisms in food systems and/or to extend their shelf life often exceeds their organoleptic acceptance levels. In this context, essential-oil-based nanoformulation preparation is promising to improve the stability of essential oil dispersions before and along their application, as well as to increase their antimicrobial activity and/or reduce their volatility. Essential oil nanoemulsion or nanoencapsulation technologies have thus been increasingly reported to favour their application to food systems (direct addition in food matrices, indirect addition with active edible coatings or food packaging systems, use as disinfection agents in food production facilities, etc.) during the last decade.

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Deadline for manuscript submissions

closed (20 February 2022)

Foods

an Open Access Journal by MDPI

Impact Factor 5.1
CiteScore 8.7
Indexed in PubMed

mdpi.com/si/91501

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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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