

REVIEW ARTICLE

# Encapsulation of bioactive compounds through electrospinning/electrospraying and spray drying: A comparative assessment of food-related applications

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## ABSTRACT

Spray drying and electrohydrodynamic processes, namely, electrospinning and electrospraying, are the most promising encapsulation technologies for entrapping and effectively delivering bioactive compounds. Encapsulation is used by the food industry to incorporate such compounds into different food matrices, protect them from adverse environmental conditions, and thereby increase the product shelf life and maintain the health-promoting properties of the composite formulation. This review provides a succinct discussion on the potential of food ingredient-based applications of spray drying and electrohydrodynamic processes on encapsulation as well as the principles and the parameters that affect the structure–morphology of the carrier matrix and the encapsulation efficiency of the process.

## KEYWORDS

Bioactives; electrospinning; electrospraying; encapsulation; food application; spray drying