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**Abstract (English)**
High-pressure homogenization (HPH) processing has been used to increase the water dispersity of curcumin, a popular spice and coloring and antioxidant agent, which shows anti-inflammatory and anti-cancer properties but poor water solubility and oral bioavailability. The optimized HPH treatment was achieved at the combined conditions of temperature at 2°C, pressure at 150 MPa, and 10 HPH cycles. Spray drying of maltodextrin-entrapped curcumin can also increase the water dispersity of curcumin. The combination of HPH processing with spray drying would be an excellent processing method for curcumin-based functional food products.

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