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Microfluidic Synthesis of Chlorophyll Extraction–Loaded PCL Composite Microparticles Developed as Health Food

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Abstract : Chlorophyll has many benefits for human body. It is known to improve the health of the circulatory, digestive, immune and detoxification systems of the body. However, Chl can't be preserved at the environment of high temperature and light exposure for a long time due to it is chemical structure is easily degradable. This characteristic causes that human body is difficult to absorb Chl effective components. In order to solve this problem, we utilize polycaprolactone (PCL) polymer encapsulation technology to increase the stability of Chl. In particular, we also established a microfluidic platform provide the control of composite beads diameter. The new composite beads is potential to be a health food. Result show that Chl effective components via the microfludic platform can be encapsulated effectively and still preserve its effective components.

Keywords : chlorophyll, PCL, PVA, microfluidic
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