

Improvement of *In-vivo* Absorption of Nutrient by Advanced Processing of Bioencapsulation

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Submission Category:

(A) Technical research proposal to solve concrete problems

SDGs Targets/Indicators:



Bioencapsulation or microencapsulation technology can be used to protect sensitive nutritional/pharmaceutical ingredients and release them in the proper place of digestive tract. Thus, the requirement for ingredients could be reduced, which is beneficial to improve human health, reduce hunger/poverty and decrease the consumption of resource/energy. It could also improve partnership between different fields and areas. In summary, this technology is good for achieving sustainable development goals globally.

Abstract:

The loss of food or drug compound due to low bioavailability and *in-vivo* degradation cause huge material and/or energy waste but receive insufficient concern. Since 1990s, researchers started to improve compound bioavailability and preserve compound against degradation by microencapsulation technology. A lot of researches have been dedicated to find combinations of compounds that realize the major motivation of microencapsulation. However, processing science of microencapsulation which can be widely-applicable, especially in developing countries, in terms of processing cost and technology is seriously lacking. Therefore, we hope to construct an approach a widely-applicable, easily-operable, sustainable bioencapsulation technique.