

Supporting Information

**Structure-property relationship of pea protein fibrils in stabilization of HIPEs and the encapsulation, protection, controlled release and oral delivery of carotenoids for alleviating intestinal inflammation**

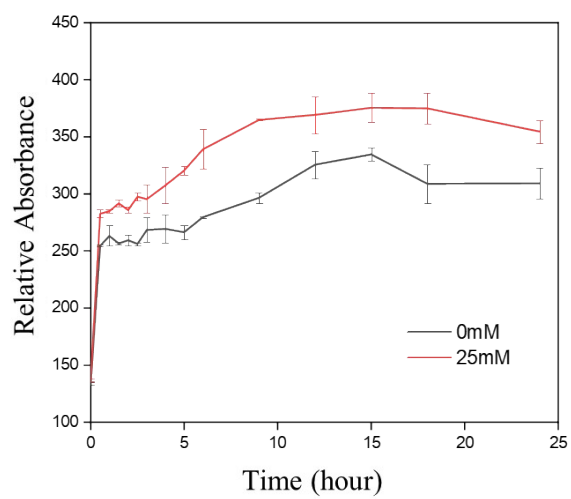
Yanhua Liu<sup>†</sup>, Xiaorong Zhang<sup>†</sup>, Ran Zhao<sup>†</sup>, Yingqun Nian, Bing Hu<sup>\*</sup>

College of Food Science and Technology, Nanjing Agricultural University, 1 Weigang,  
Nanjing, Jiangsu, 210095, P. R. China.

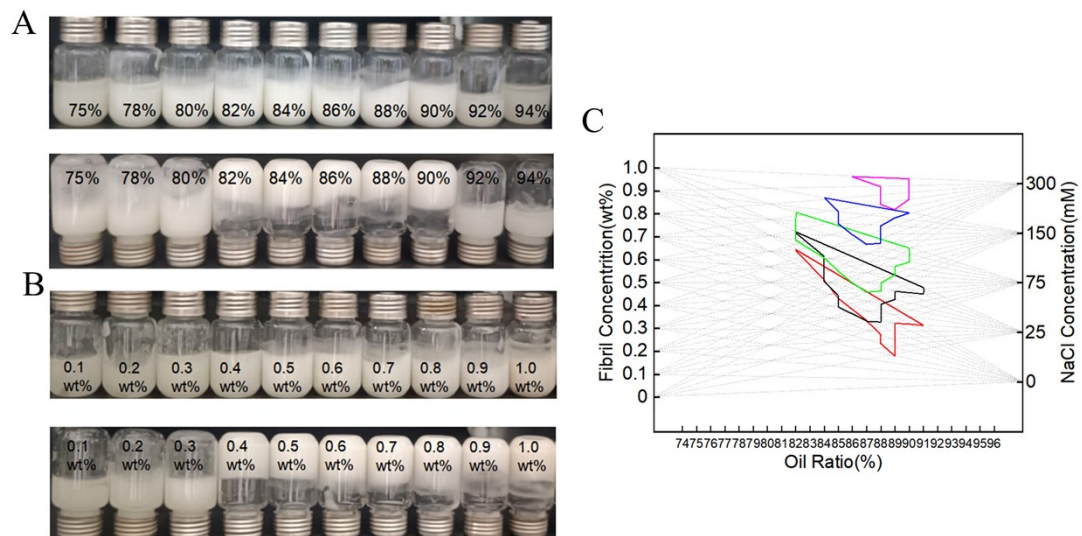
<sup>†</sup>Equal contribution

<sup>\*</sup>To whom correspondence should be addressed.

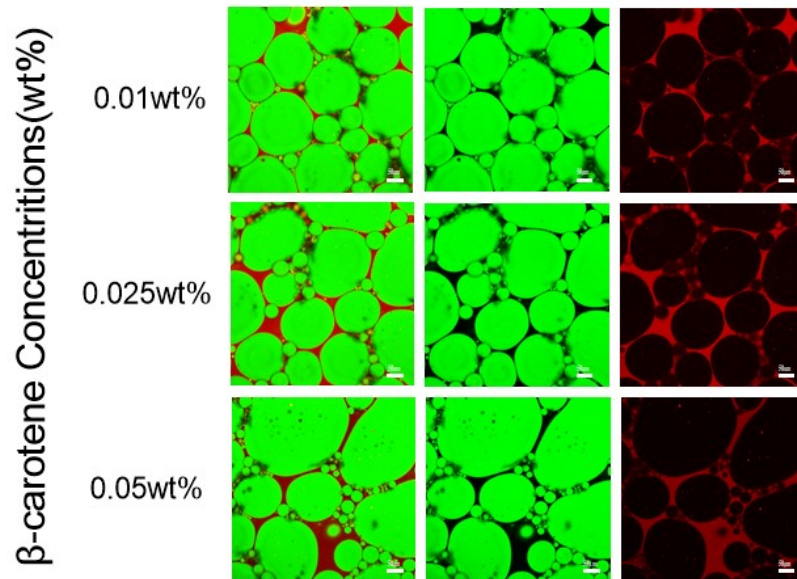
**E-mail:** [hubing212002@njau.edu.cn](mailto:hubing212002@njau.edu.cn)



**Fig.S1** Th T fluorescence assay of pea protein fibril formation in the presence of 0 and 25 mM NaCl.



**Fig.S2** (A) Inversion experiment of HIVEs stabilized by pea protein fibrils with different oil phase volume fraction. (B) Inversion experiment of HIVEs stabilized by pea protein fibrils with different fibril concentration. (C) Phase diagram of hHIVEs stabilized by pea protein fibrils formed at different NaCl concentrations.



**Fig.S3** CLSM images of HIPEs containing different amounts of  $\beta$ -carotene stabilized by pea protein fibrils formed at 25 mM NaCl.

Table S1. Primer Sequences Utilized in the RT-qPCR Experiments

| Target gene  | Primer  | Sequence (5'–3')        |
|--------------|---------|-------------------------|
| IL-1 $\beta$ | forward | AGCTTCAAATCTCGCAGCAG    |
|              | reverse | TCTCCACAGCCACAATGAGT    |
| MCP-1        | forward | AACTGCATCTGCCCTAAGGT    |
|              | reverse | CTGTCACACTGGTCACTCCT    |
| Lcn-2        | forward | ACATTTGTTCCAAGCTCCAGGGC |
|              | reverse | CATGGCGAACTGGTTGTAGTCCG |
| GAPDH        | forward | AGGTCGGTGTGAACGGATTTG   |
|              | reverse | TGTAGACCATGTAGTTGAGGTCA |