Supplementary Information

Fabrication of soy protein isolate/fucoidan complex-stabilized high internal phase Pickering emulsions for enhanced naringenin stability, bioavailability, and 3D printability

Yubo Cao, Quanshu Wang, Tong Sun, Fang Wang, Luanfeng Wang, Haizhao Song *, Xinchun Shen

College of Food Science and Engineering, Nanjing University of Finance and Economics/ Collaborative Innovation Center for Modern Grain Circulation and Safety, Nanjing 210023, China

* **Corresponding author:** Haizhao Song, e-mail: songhaizhaothu@nufe.edu.cn

Supplementary Figure

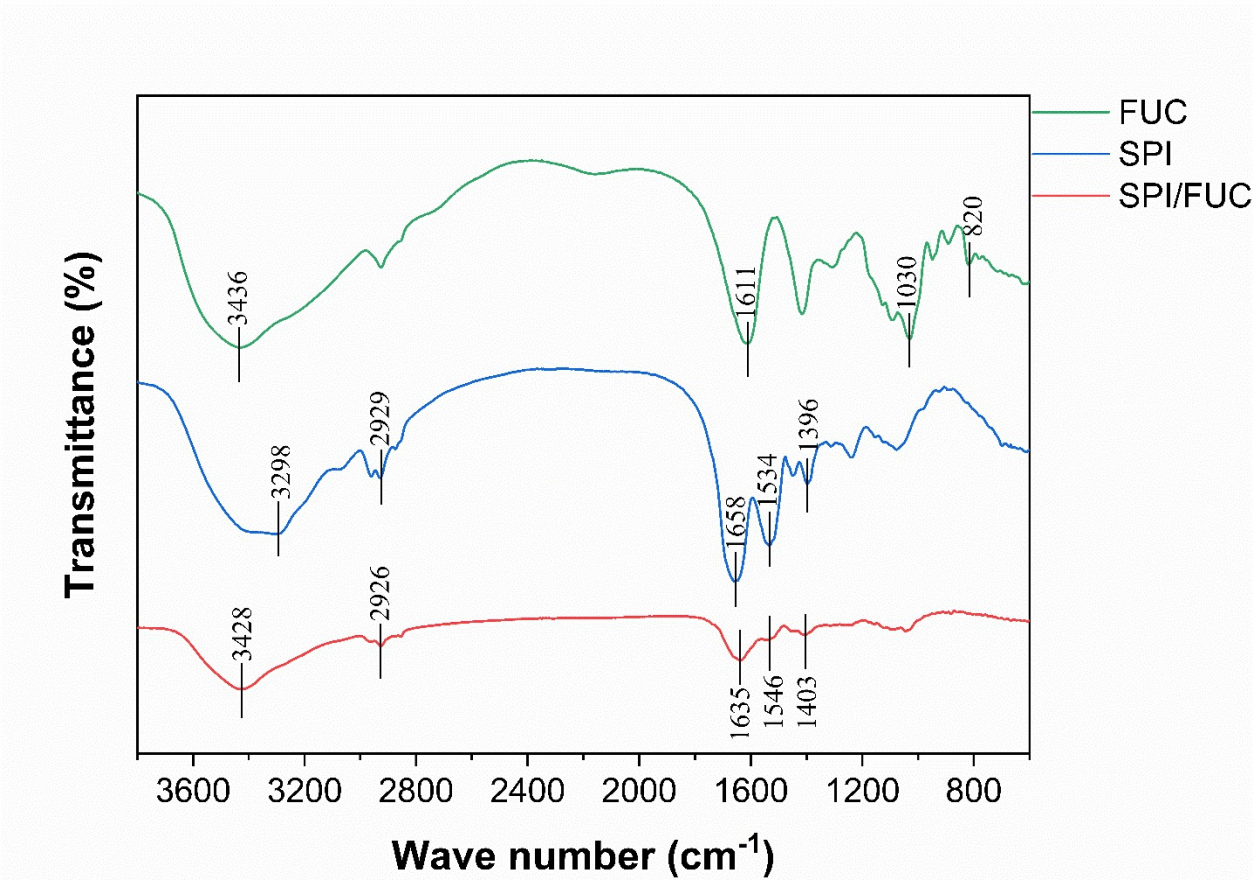

Figure S1. FTIR spectra of SPI, FUC, and the SPI/FUC complexes

Supplementary Table S1. Quantitative assessment of the Print Fidelity Error (PFE) of 3D-printed cuboids from naringenin-loaded high internal phase Pickering emulsions stabilized by different formulations

Sample Group	Actual Length (mm)	PFE-Length (%)	Actual Width (mm)	PFE- Width (%)	Actual Height (mm)	PFE-Height (%)	Average Sample PFE (%)
SPI-HIPPEs	16.75 ± 0.22b	16.25 ± 1.09a	16.38 ± 0.15b	18.08 ± 0.76a	9.60 ± 0.46b	25.13±4.64a	20.16 ± 1.10a
Nar+SPI-HIPPEs	16.72 ± 0.16b	16.42 ± 0.80a	16.43 ± 0.25b	17.83 ± 1.26a	9.73 ± 0.60b	24.87±3.47a	19.79 ± 0.92a
SPI/FUC-HIPPEs	20.11 ± 0.10a	1.25 ± 0.25b	20.05 ± 0.05a	0.25 ± 0.25b	13.10 ± 0.26a	1.79±0.44b	0.88 ± 0.38b
Nar+SPI/FUC-HIPPEs	20.25 ± 0.05a	1.08 ± 0.52b	20.13 ± 0.20a	0.83 ± 0.80b	13.07 ± 0.15a	1.03 ± 0.44b	1.04 ± 0.33b

Different lowercase superscript letters within the same column indicate significant differences ($P < 0.05$). PFE, Print Fidelity Error; SPI, soy protein isolate; FUC, fucoidan; NAR, naringenin; HIPPEs, high internal phase Pickering emulsions.