

Supplemental Table S1. Raw particle size data for samples prior to and during the dynamic freezing process for low fat ice cream (C-0), low fat ice cream with polysorbate 80 (C-P80), and low fat ice cream HPJ-processed at 100 MPa, 200 MPa, 300 MPa, 400 MPa, and 500 MPa.

Sample	Stage	D ₅₀ (μm) ¹	D ₉₀ (μm)	D [4,3] (μm)
C	Mix	0.45±0.04	0.82±0.11	0.50±0.06
	0min	0.44±0.04	0.90±0.18	0.68±0.21
	6min	0.55±0.05	1.36±0.13	0.75±0.11
	12min	0.62±0.08	1.77±0.33	0.90±0.19
CP	Mix	0.36±0.04	0.61±0.11	0.51±0.17
	0min	0.42±0.03	1.43±0.56	0.97±0.41
	6min	0.74±0.09	1.85±0.25	1.23±0.63
	12min	0.81±0.40*	2.25±0.89	3.68±2.56
100MPa	Mix	0.44±0.04	0.83±0.11	0.53±0.08
	0min	0.44±0.03	0.88±0.18	0.65±0.28
	6min	0.60±0.07	1.53±0.20	1.67±1.38
	12min	0.63±0.04	1.56±0.06	0.80±0.04
200MPa	Mix	0.41±0.01	0.73±0.04	0.45±0.02
	0min	0.43±0.03	0.86±0.15	0.54±0.09
	6min	0.52±0.03	1.29±0.16	0.70±0.09
	12min	0.60±0.04	1.67±0.10	0.83±0.06
300MPa	Mix	0.53±0.10	13.10±10.95	3.68±1.93
	0min	0.41±0.02	0.85±0.12	0.82±0.10
	6min	0.50±0.02	1.33±0.15	1.03±0.38
	12min	0.59±0.06	1.69±0.15	1.26±0.70
400MPa	Mix	7.12±1.89*	32.73±8.96*	13.06±2.91*
	0min	0.59±0.10	16.30±3.50	4.42±1.52
	6min	0.57±0.04	6.37±2.84	2.81±0.88
	12min	0.87±0.18	10.78±5.70*	3.62±1.53*
500MPa	Mix	9.64±1.01*	25.89±1.80*	12.91±0.77*
	0min	0.92±0.65	15.55±13.21	5.11±3.93
	6min	0.52±0.03	3.85±1.92	1.60±0.64
	12min	0.81±0.23	7.95±4.16	2.89±1.17

¹ Values presented as Mean±SD for triplicate samples

*Reflects significant (P < 0.05) differences from the C-0 sample within the specific particle size parameter and at the specified time