

Fibrillar aggregates in powdered milk

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SUPPLEMENTARY FILE

1. Solutions preparation

Table S1: The main components of the analysed powdered milks per 100 ml of ready-to-drink milk^a.

	Energy value [kcal]	Carbohydrates [g]	Fat [g]	Fiber [g]	Protein [g]
Milk 1	66	7.4	3.4	0.6	1.3
Milk 2	67	7.45	3.56	0.1	1.24
Milk 3	65	8.4	2.6	0.8	1.6

^aaccording to the manufacturer declaration

2. X-ray powder diffraction analysis

The powdered milks were analysed using X-ray powder diffraction. The resulting XRD patterns are presented in Fig. S1. The analysed samples are complex polycrystalline mixtures and thus we did not calculate the interatomic distances from the Bragg's Law. The sharp diffraction peaks indicate that the samples contained well ordered crystalline compounds. The recorded pattern can be interpreted as evidence of the presence of amyloids or may result from the presence of crystalline forms of low molecular weight compounds. This can be seen especially well in the example of milk 1, where the agreement of the obtained pattern with the reference pattern of the lactose is particularly good (see Fig. S2). The patterns recorded for the milk 2 and 3 are visibly different and it is difficult to convincingly compare the signals with the reference data.

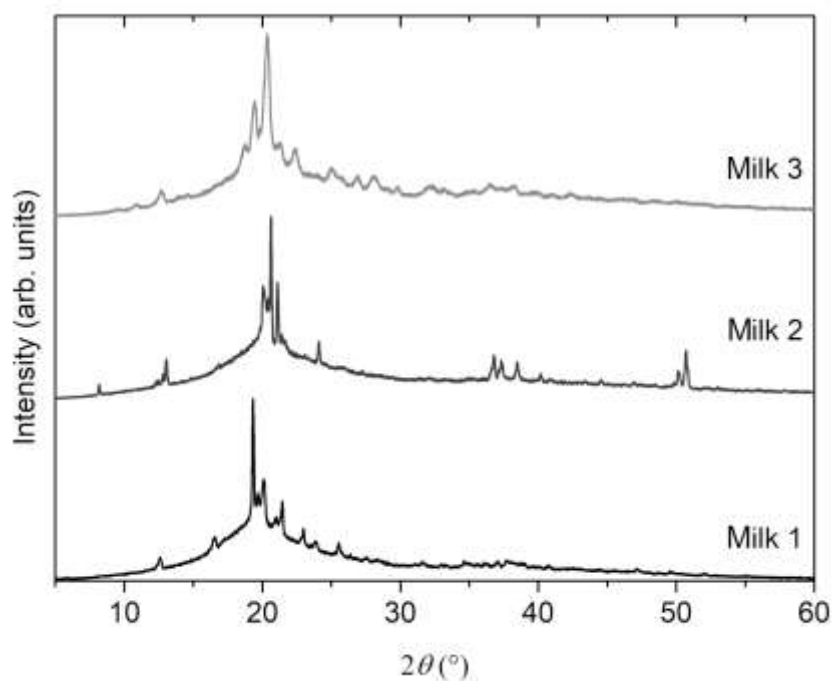


Figure S1. The X-ray powder diffraction patterns for the analyzed samples of the powdered milks

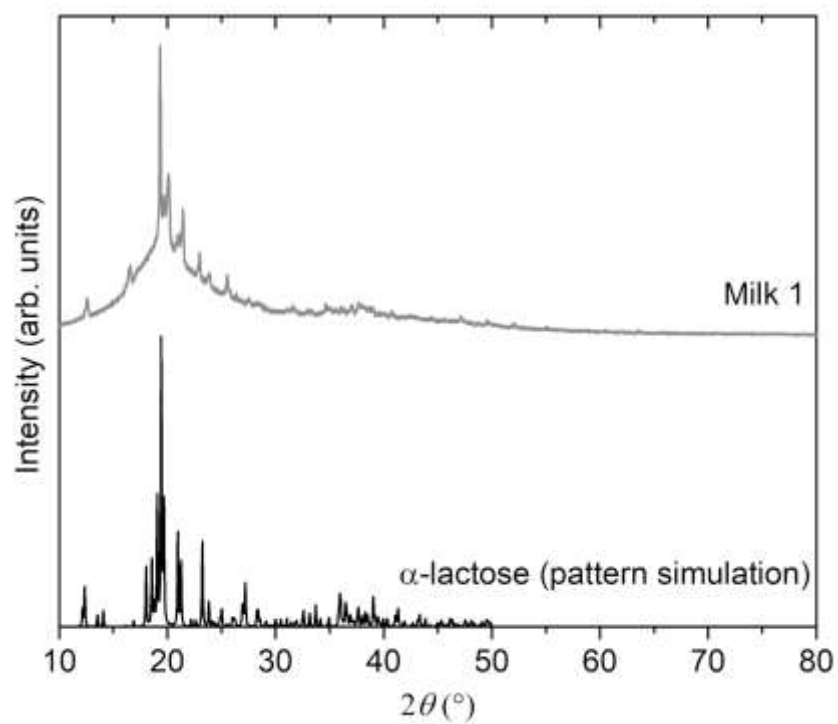


Figure S2. Comparison of the X-ray powder diffraction pattern for the sample of milk 1 with reference pattern for lactose.