

Supplementary Information

for

High-throughput quantitation of bovine milk proteins and discrimination of commercial milk types by External cavity-quantum cascade laser spectroscopy and chemometrics

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Table S1. Concentration of individual protein calibration samples

Calibration	Milk sample	Set 1 (mg mL ⁻¹)			Set 2 (mg mL ⁻¹)			Set 3 (mg mL ⁻¹)		
sample ^a	added (%)	α-LA	β-LG	Cas	α-LA	β-LG	Cas	α-LA	β-LG	Cas
C1-01	25	0.10	-	-	-	0.2	-	-	-	20.0
C1-02	50	0.10	-	-	-	0.2	-	-	-	20.0
C1-03	75	0.10	-	-	-	0.2	-	-	-	20.0
C1-04	25	0.50	-	-	-	1.2	-	-	-	23.0
C1-05	50	0.50	-	-	-	1.2	-	-	-	23.0
C1-06	75	0.50	-	-	-	1.2	-	-	-	23.0
C1-07	25	1.00	-	-	-	2.4	-	-	-	26.0
C1-08	50	1.00	-	-	-	2.4	-	-	-	26.0
C1-09	75	1.00	-	-	-	2.4	-	-	-	26.0
C1-10	25	1.50	-	-	-	3.8	-	-	-	29.0
C1-11	50	1.50	-	-	-	3.8	-	-	-	29.0
C1-12	75	1.50	-	-	-	3.8	-	-	-	29.0
C2-01	25	0.75	-	-	-	1.8	-	-	-	25.0
C2-02	50	0.75	-	-	-	1.8	-	-	-	25.0
C2-03	75	0.75	-	-	-	1.8	-	-	-	25.0
C2-04	25	1.25	-	-	-	3.0	-	-	-	27.0
C2-05	50	1.25	-	-	-	3.0	-	-	-	27.0
C2-06	75	1.25	-	-	-	3.0	-	-	-	27.0
C2-07	25	1.75	-	-	-	4.4	-	-	-	31.0
C2-08	50	1.75	-	-	-	4.4	-	-	-	31.0
C2-09	75	1.75	-	-	-	4.4	-	-	-	31.0

^a C1: prepared with UHT Milk; C2: prepared with ESL HTST Milk

Table S2. Concentration of total protein calibration samples

Calibration sample ^a	Milk sample added (%)	Total protein (mg mL ⁻¹)
<i>C1-01</i>	40	30.0
<i>C1-02</i>	60	31.0
<i>C1-03</i>	80	31.0
<i>C1-04</i>	40	31.0
<i>C1-05</i>	60	32.0
<i>C1-06</i>	80	33.0
<i>C1-07</i>	40	29.0
<i>C1-08</i>	60	31.0
<i>C1-09</i>	80	32.0
<i>C2-01</i>	40	33.0
<i>C2-02</i>	60	34.0
<i>C2-03</i>	80	35.0
<i>C2-04</i>	40	34.0
<i>C2-05</i>	60	35.0
<i>C2-06</i>	80	35.0
<i>C2-07</i>	40	31.0
<i>C2-08</i>	60	33.0
<i>C2-09</i>	80	33.0

^a C1: prepared with UHT Milk; C2: prepared with ESL HTST Milk