Supplemental Document

applied optics

Rapid quantitative analysis of calcium in infant formula powder assisted by long short-term memory with variable importance using laser-induced breakdown spectroscopy: supplement

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- Figure S1

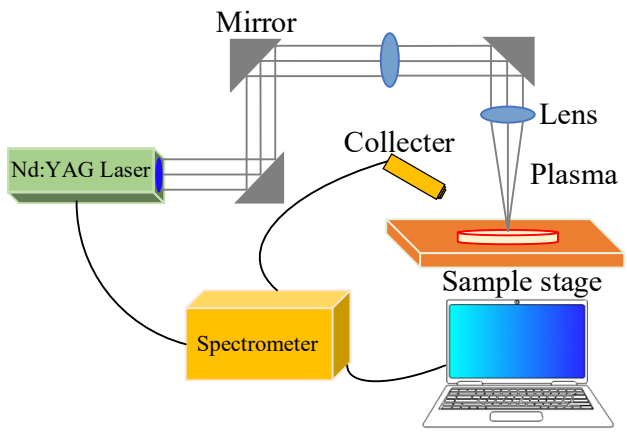

Fig. S1. LIBS setup.

- Figure S2

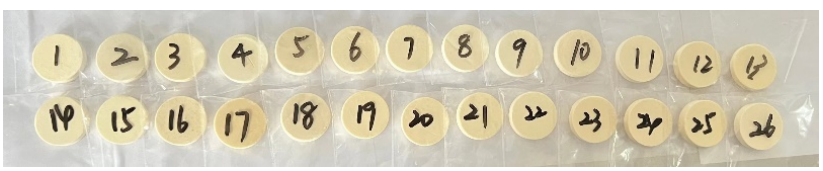

Fig. S2. The physical photo of samples.

- Figure S3

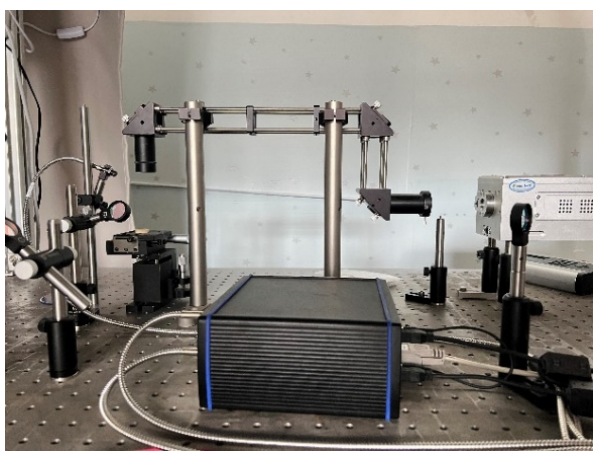

Fig. S3. The physical photo of LIBS system.

- Figure S4

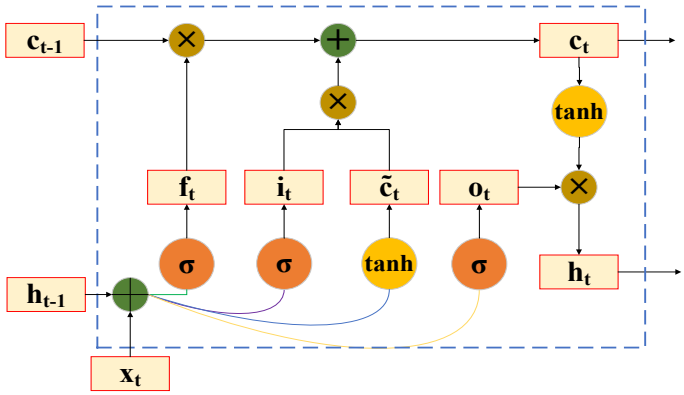

Fig. S4. LSTM structure.

- Figure S5

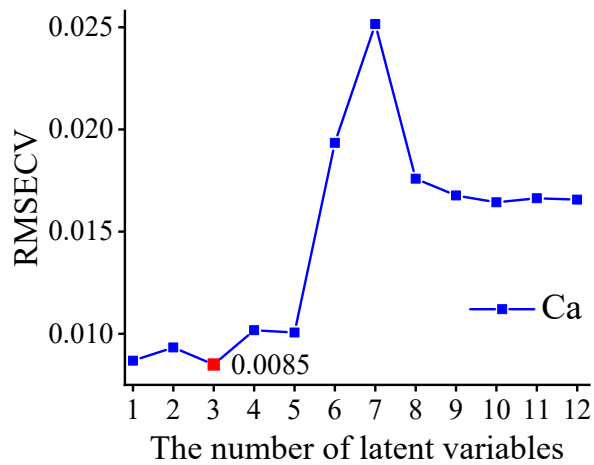

Fig. S5. The RMSECVs for different LVs.

- Figure S6

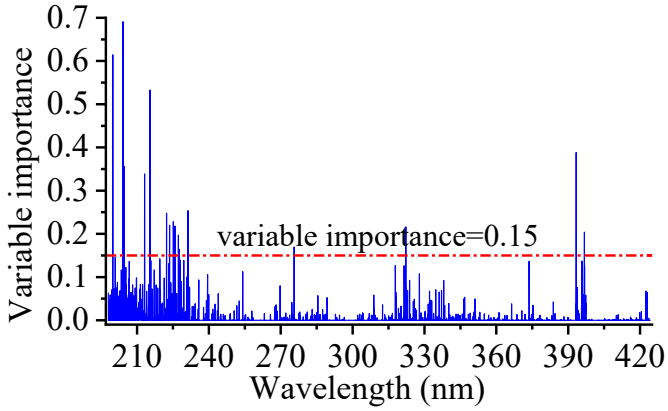

Fig. S6. The relationship between variable importance and input variables.

- Table S1

Table S1. The results of different LSTM model network layers

Number of network layers	$MAPE_P$
1	0.0801
2	0.0733
3	0.0682
4	0.0658
5	0.0673
6	0.0693
7	0.0669
8	0.0685
9	0.0662
10	0.0682
11	0.0680
12	0.0710