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Rapid quantification of multi-components in alcohol precipitation liquid of *Codonopsis Radix* using near infrared spectroscopy (NIRS)

Key words: Near infrared spectroscopy, *Codonopsis Radix*, Alcohol precipitation, Real-time release testing, Multi-component quantification

Highlights

- A rapid NIRS method was established to quantify the intermediates alcohol precipitation liquid in *Codonopsis Radix* production.
- Detailed NIRS procedures were developed with variations of process parameters and concentrations information were built into sample set.
- Satisfactory predictive results were obtained of the lobetyolin, total flavonoids, pigments, and total solid contents models.

Research Summary

Alcohol precipitation experiments

Process parameters
variation

Concentration
variation

Sample set

CQAs:
Lobetyolin
Total flavonoids
Pigments
Total solid contents

PLS models

