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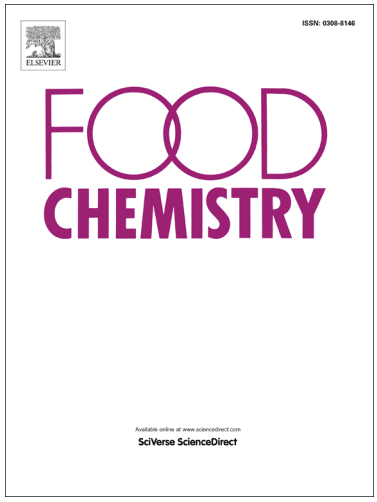

Detection of unexpected frauds: Screening and quantification of maleic acid in cassava starch by Fourier transform near-infrared spectroscopy

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PII: S0308-8146(17)30072-9
DOI: http://dx.doi.org/10.1016/j.foodchem.2017.01.061
Reference: FOCH 20453

To appear in: *Food Chemistry*

Received Date: 30 June 2015
Revised Date: 27 December 2016
Accepted Date: 13 January 2017

Please cite this article as: Fu, H-Y., Li, H-D., Xu, L., Yin, Q-B., Yang, T-M., Ni, C., Cai, C-B., Yang, J., She, Y-B., Detection of unexpected frauds: Screening and quantification of maleic acid in cassava starch by Fourier transform near-infrared spectroscopy, *Food Chemistry* (2017), doi: http://dx.doi.org/10.1016/j.foodchem.2017.01.061

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Detection of unexpected frauds: Screening and quantification of maleic acid in cassava starch by Fourier transform near-infrared spectroscopy

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Abstract Fourier transform near-infrared (FT-NIR) spectroscopy and chemometrics were adopted for the rapid analysis of a toxic additive, maleic acid (MA), which has emerged as a new extraneous adulterant in cassava starch (CS). After developing an untargeted screening method for MA detection in CS using one-class partial least squares (OCPLS), multivariate calibration models were subsequently developed using least squares support vector machine (LS-SVM) to quantitatively analyze MA.

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