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A Multiple Processing Hybrid Flow System for Analysis of Formaldehyde Contamination in Food

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This work proposes a flow system suitable for the rapid screening of formaldehyde contaminated in food. The system is based on the concept of a flow analyzer with a Hantzsch reaction. An operating procedure was developed for multiple tasking and high sample throughput. This resulted in a significant sample throughput of 51 samples h^{-1} . Under the optimized conditions, linear calibration from 10 to 100 μ M was obtained. The system gave a limit of detection and a limit of quantitation of 0.06 and 0.10 mg kg⁻¹, respectively. The system was successfully applied to re-hydrated dry squids, vegetables and mushrooms.

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