

Automated sample preparation for food analysis

QuEChERS (quick, easy, cheap, effective, rugged, and safe) sample preparation methods have been developed to help monitor pesticides in a range of food samples. These methods require many manual steps, such as shaking, centrifugation, and dispersive SPE, making it a quite labor-intensive process. There is a need for automating the dispersive SPE technique to clean up QuEChERS type extracts in order to improve laboratory productivity for monitoring pesticide residue in foods.

GERSTEL, we provide an automated sample preparation and analysis workflow for the screening of pesticides residues in different food matrices (fruits, vegetables and spices). The automated cleanup of the QuEChERS extracts methodology was performed using Solid Phase Extraction (SPE). The ability to automate the SPE cleanup of QuEChERS extracts and combine it with direct introduction of the cleaned extract to the chromatography/Mas spectrometer results in improved laboratory productivity by streamlining the complete analytical process.