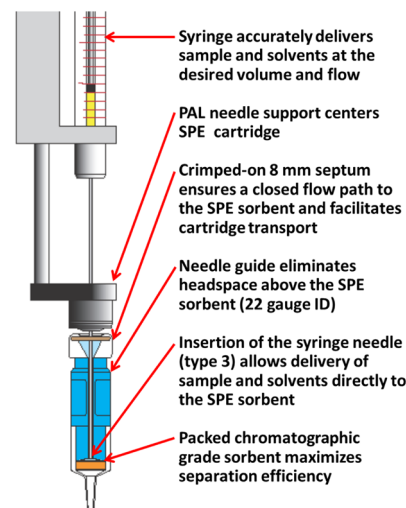
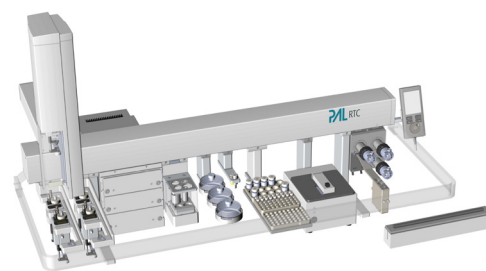
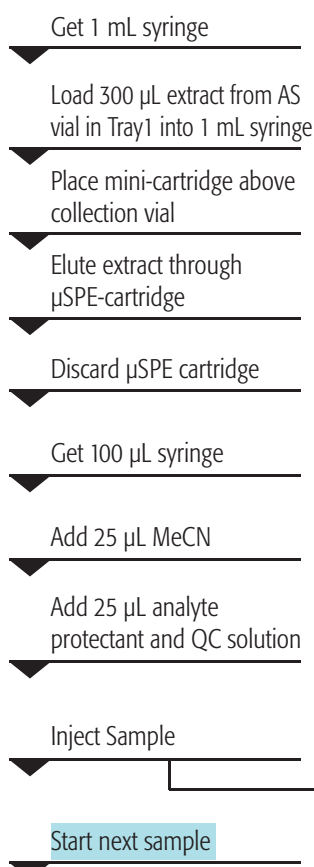


Automated μ SPE cleanup for GC-MS or LC-MS analysis of pesticides and environmental contaminants in QuEChERS extracts of foods



Clean-up for GC-MS and LC-MS analysis of pesticides and environmental contaminants in QuEChERS extracts of foods

- The μ SPE cleanup coupled with GC-MS/MS analysis achieves high quality results for diverse type of analytes and foods (apple, kiwi, carrot, kale, orange, black olive, pork loin, salmon, and avocado; Lehotay et al., 2016).
- The approach enables reliable, high-throughput operations without much labor or instrument maintenance.
- Cartridge-based SPE (μ SPE) provides better cleanup than dispersive-SPE (d-SPE).
- Instrument up-time increases significantly because of cleaner extracts
- The automated μ SPE step takes 8 min per sample.



Dispersive SPE

- **Limited selectivity**, limited clean-up
 - High sample and solvent volumes
- **Manual operation**
 - Time consuming
 - Low sample throughput
- **Not traceable**
 - Manual operation, no activity log

μ SPE

- **High selectivity**, good clean-up
 - compares to LC separation
- **Walk away automation**
 - Fast with < 10 min
 - High productivity
- **Traceable**
 - Processing well documented

Lehotay et. al. Chromatographia **79**, 17, pp 1113–30, 2016 <http://link.springer.com/article/10.1007/s10337-016-3116-y/fulltext.html>
 Morris, Schriner. J Agric Food Chem, **63**, 5107-19, 2015 <https://www.ncbi.nlm.nih.gov/pubmed/25702899>

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