



Optimized QuEChERS Method For Acrylamide Analysis*

UCT Products: ECMS4MSC550CT
CUMPS2CT

October 21, 2009

1) Extraction

- a) Add 1.0 gram of sample to a 50 mL centrifuge tube
- b) Add contents of ECMS4MSC550CT (4g MgSO₄ and 0.5g NaCl)
- c) Add 500 ng/g d₃-acrylamide to the tube
- d) Add 5 mL of hexane
- e) Vortex for 1 minute
- f) Add 10 mL of reagent water and 10 mL of acetonitrile
- g) Shake vigorously for 1 minute
- h) Centrifuge for 5 minutes at 3450 rcf

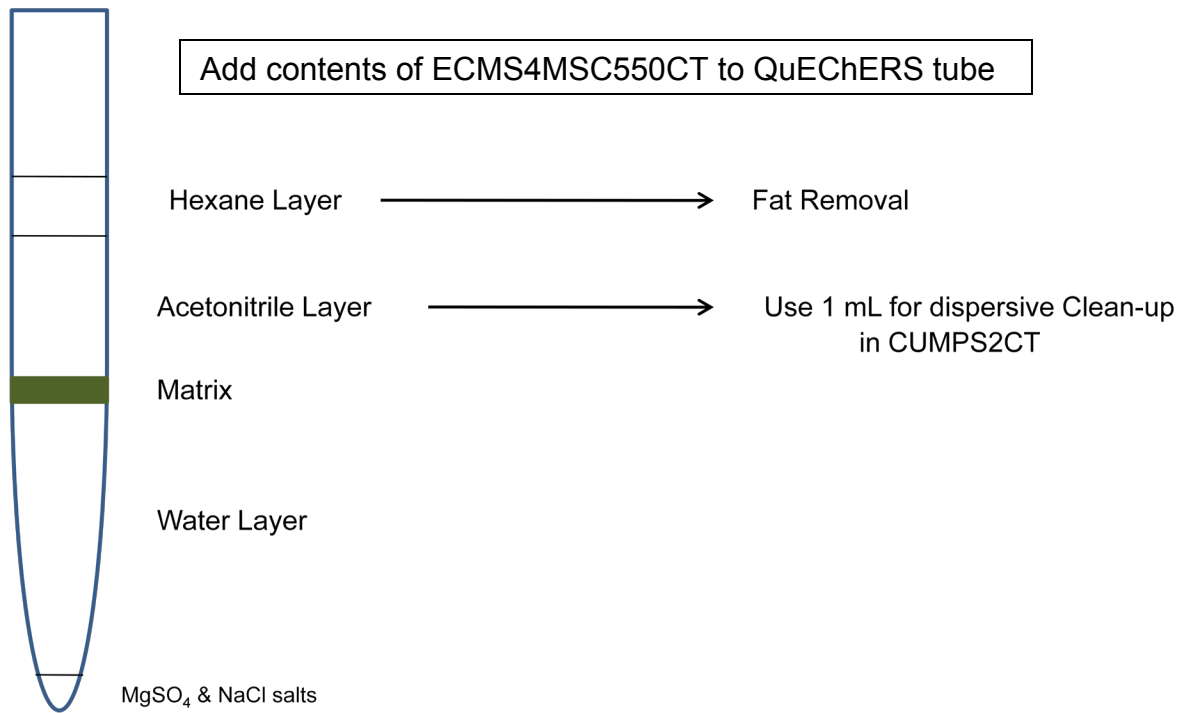
2) Clean-Up

- a) Discard the hexane top layer
- b) Add 1 mL of the acetonitrile layer to a CUMPS2CT tube (150 mg MgSO₄, 50 mg PSA)
- c) Mix for 30 seconds
- d) Centrifuge at 3450 rcf for 1 minute
- e) Transfer liquid portion to an injection vial

3) Analysis

- a) Inject 5-10 µL into an LC/MS/MS

Acrylamide Extraction Step



*Adapted from Kate Mastovska, USDA-ARS

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