

Customized SPE Solutions for Food Testing

Your samples aren't created the same, so don't settle for general solid phase extraction solutions. Finding the right SPE sorbent provides high recoveries, clean injections, and gains in sensitivity.

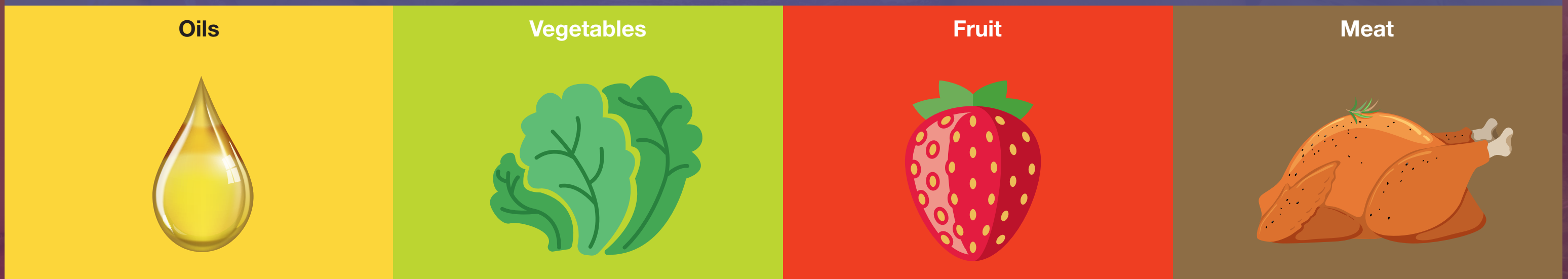


Polymeric SPE Options

Target Analyte	Strong Acids ($pK_a < 2$)	Weak Acids ($pK_a 2-4$)	Neutral Compounds	Weak Bases ($pK_a 8-10$)	Strong Bases ($pK_a > 10$)
	Reversed Phase & Weak Anion-Exchange	Reversed Phase & Strong Anion-Exchange	Reversed Phase	Reversed Phase & Strong Cation-Exchange	Reversed Phase & Weak Cation-Exchange
Retention Mechanism	Strata-X-AW Di-amino	Strata-X-A Quaternary Amine	Strata-X N-Vinylpyrrolidone	Strata-X-C Sulfonic Acid	Strata-X-CW Carboxylic Acid
Recommended Methods	<p>Condition: 1 mL Methanol</p> <p>Equilibrate: 1 mL Acidified Water</p> <p>Load: 2 mL Diluted Sample (pH 6-7)</p> <p>Wash: 1 mL 25 mM Ammonium Acetate* (pH 6-7)</p> <p>Elute Neutrals/Bases: 2 x 500 μL Methanol</p> <p>Elute Any Acid: 2x 500 μL 5% NH_4OH in Methanol</p> <p>Elute Weak Acids: 2x 500 μL 5% Formic Acid in Methanol</p>	<p>Condition: 1 mL Methanol</p> <p>Equilibrate: 1 mL Water</p> <p>Load: 2 mL Diluted Sample (pH 6-7)</p> <p>Wash: 1 mL 25 mM Ammonium Acetate* (pH 6-7)</p> <p>Elute Neutrals/Bases: 2x 500 μL Methanol*</p> <p>Wash: 1 mL Methanol*</p> <p>Elute Acids: 2x 500 μL 5% Formic Acid in Methanol</p>	<p>Condition: 1 mL Methanol</p> <p>Equilibrate: 1 mL Water</p> <p>Load: 2 mL Diluted Sample</p> <p>Wash: 1 mL 5-60% Methanol*</p> <p>Elute: 2x 500 μL 2% Formic Acid in Methanol or Acetonitrile</p>	<p>Condition: 1 mL Methanol</p> <p>Equilibrate: 1 mL Acidified Water</p> <p>Load: 2 mL Diluted Acidified Sample (pH 6-7)</p> <p>Wash: 1 mL 0.1 N HCl in Water</p> <p>Elute Neutrals/Acids: 2x 500 μL 0.1 N HCl in Methanol*</p> <p>Wash: 1 mL 0.1 N HCl in Methanol*</p> <p>Elute Bases: 2x 500 μL 5% NH_4OH in Methanol</p>	<p>Condition: 1 mL Methanol</p> <p>Equilibrate: 1 mL Water</p> <p>Load: 2 mL Diluted Sample (pH 6-7)</p> <p>Wash: 1 mL Water</p> <p>Elute Neutrals/Acids: 2 x 500 μL Methanol</p> <p>Elute Any Base: 2x 500 μL 5% Formic Acid in Methanol</p> <p>Elute Weak Bases: 2x 500 μL 5% NH_4OH in Methanol</p>

* Dry cartridge 5 - 10 mins prior to elution to remove residual solvents.

Matrix Options (Not limited to pictures below)



Recommended Loading Capacity

Strata-X Phase	Food/Plant Material	Mass (mg in tube)
Strata-X, X-C, X-CW, X-A, X-AW	100 mg	10 mg
	300 mg	30 mg
	600 mg	60 mg
	1 g	100 mg
	2 g	200 mg
	5 g	500 mg
Strata-XL, XL-C, XL-CW, XL-A, XL-AW	10 g	1 g
	20 g	2 g
	25 mg	125 mg
	50 mg	250 mg
	100 mg	500 mg
	200 mg	1 g
	500 mg	2.5 g
	1 g	5 g
	2 g	10 g

N.A. = Not Applicable (not commonly used)
N.R. = Not Recommended (may not provide expected results)

Wash and Elution Solvent Volumes

strata [®] Sorbent Mass	100 mg	150 mg	200 mg	500 mg	1 g	2 g	5 g	10 g
Practical Minimum Wash and Elution Volume 4 bed volumes	1 mL	1.5 mL	2 mL	5 mL	10 mL	20 mL	50 mL	100 mL
Recommended Wash and Elution Volume 8 bed volumes	2 mL	3 mL	4 mL	10 mL	20 mL	40 mL	100 mL	200 mL

Available Formats for Strata-X or Strata SPE

Giga [™] Tubes	Tubes	On-Line Columns and Cartridges
Large format tubes ideal for large volume samples	Excellent for most common extractions and available in a large variety of different volumes	Run samples in parallel with LC analysis for further time savings

Additional Strata Silica Based Phases for Your Analytes

- SDB-L** (styrene divinylbenzene) hydrophobic and aromatic selectivity for reversed phase applications
- Si-1** (Silica) for strong polar selectivity
- C18-E** for extraction of hydrophobic or polar organic analytes from aqueous matrices
- AI-N** for the extraction of polar compounds from food samples
- NH₂** for strong polar selectivity and hydrogen bonding under normal phase conditions
- SAX** and **SCX** for strong anion and cation exchange sorbents



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Questions?
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SPE Method Development Tool

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