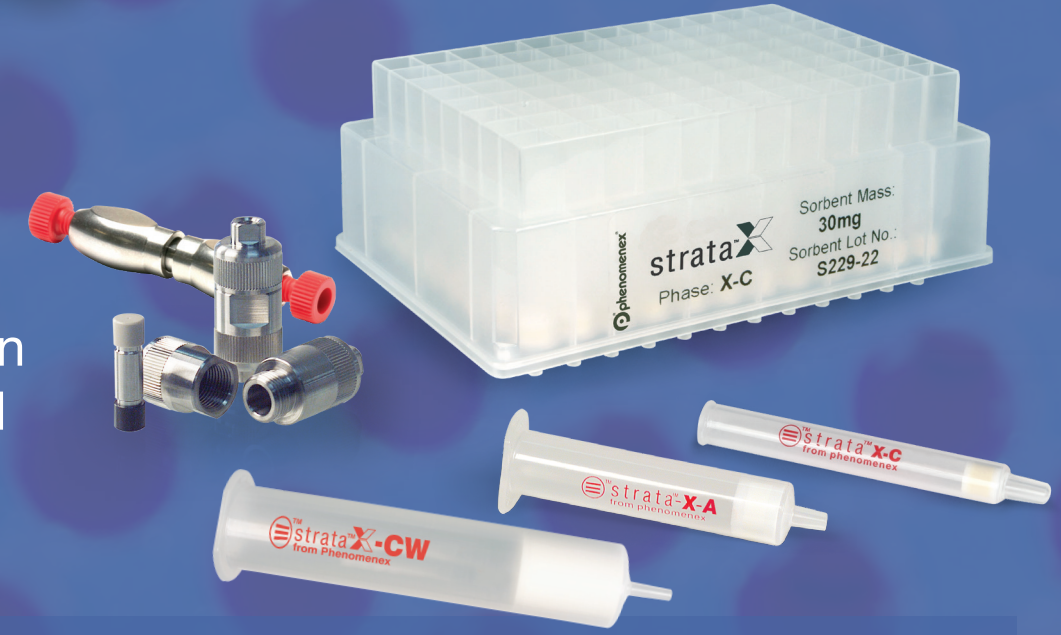
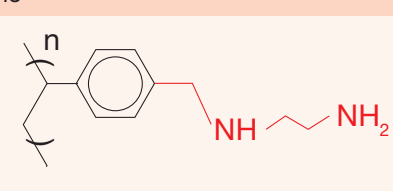
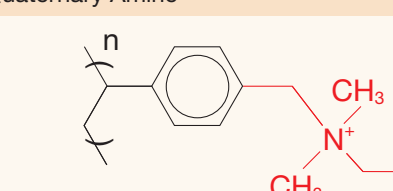
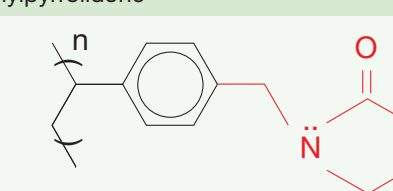
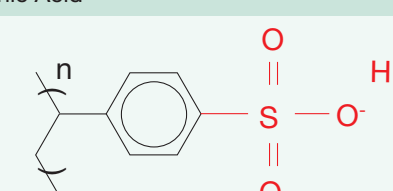
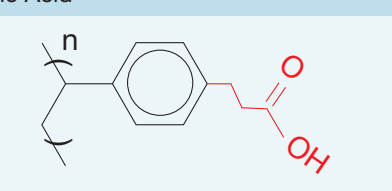


# Customized SPE Solutions for Clinical Research

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.

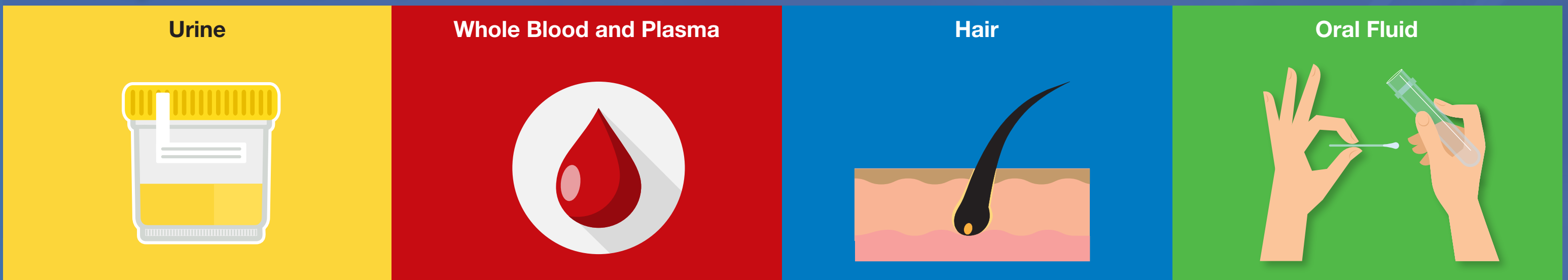


## Polymeric SPE Options

Target Analyte	Strong Acids ( $pK_a < 2$ )	Weak Acids ( $pK_a 2-4$ )	Neutral Compounds	Weak Bases ( $pK_a 8-10$ )	Strong Bases ( $pK_a > 10$ )
Retention Mechanism	Reversed Phase & Weak Anion-Exchange	Reversed Phase & Strong Anion-Exchange	Reversed Phase	Reversed Phase & Strong Cation-Exchange	Reversed Phase & Weak Cation-Exchange
Recommended Methods	<p><b>Strata-X-AW</b></p> <p>Di-amino</p>  <p><b>Condition:</b> 1 mL Methanol <b>Equilibrate:</b> 1 mL Acidified Water <b>Load:</b> 2 mL Diluted Sample (pH 6-7) <b>Wash:</b> 1 mL 25 mM Ammonium Acetate* (pH 6-7) <b>Elute Neutrals/Bases:</b> 2 x 500 <math>\mu</math>L Methanol <b>Elute Any Acid:</b> 2x 500 <math>\mu</math>L 5% <math>NH_4OH</math> in Methanol <b>Elute Weak Acids:</b> 2x 500 <math>\mu</math>L 5% Formic Acid in Methanol</p>	<p><b>Strata-X-A</b></p> <p>Quaternary Amine</p>  <p><b>Condition:</b> 1 mL Methanol <b>Equilibrate:</b> 1 mL Water <b>Load:</b> 2 mL Diluted Sample (pH 6-7) <b>Wash:</b> 1 mL 25 mM Ammonium Acetate* (pH 6-7) <b>Elute Neutrals/Bases:</b> 2x 500 <math>\mu</math>L Methanol* <b>Wash:</b> 1 mL Methanol* <b>Elute Acids:</b> 2x 500 <math>\mu</math>L 5% Formic Acid in Methanol</p>	<p><b>Strata-X</b></p> <p>N-Vinylpyrrolidone</p>  <p><b>Condition:</b> 1 mL Methanol <b>Equilibrate:</b> 1 mL Water <b>Load:</b> 2 mL Diluted Sample <b>Wash:</b> 1 mL 5-60% Methanol* <b>Elute:</b> 2x 500 <math>\mu</math>L 2% Formic Acid in Methanol or Acetonitrile</p>	<p><b>Strata-X-C</b></p> <p>Sulfonic Acid</p>  <p><b>Condition:</b> 1 mL Methanol <b>Equilibrate:</b> 1 mL Acidified Water <b>Load:</b> 2 mL Diluted Acidified Sample (pH 6-7) <b>Wash:</b> 1 mL 0.1 N HCl in Water <b>Elute Neutrals/Acids:</b> 2x 500 <math>\mu</math>L 0.1 N HCl in Methanol* <b>Elute Bases:</b> 2x 500 <math>\mu</math>L 5% <math>NH_4OH</math> in Methanol <b>Wash:</b> 1 mL 0.1 N HCl in Methanol*</p>	<p><b>Strata-X-CW</b></p> <p>Carboxylic Acid</p>  <p><b>Condition:</b> 1 mL Methanol <b>Equilibrate:</b> 1 mL Water <b>Load:</b> 2 mL Diluted Sample (pH 6-7) <b>Wash:</b> 1 mL Water <b>Elute Neutrals/Acids:</b> 2 x 500 <math>\mu</math>L Methanol <b>Elute Any Base:</b> 2x 500 <math>\mu</math>L 5% Formic Acid in Methanol <b>Elute Weak Bases:</b> 2x 500 <math>\mu</math>L 5% <math>NH_4OH</math> 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	Plasma/Serum/Blood	Urine	Filtered Tissue Homogenates	Oral Fluid	Mass (mg in tube)
Strata-X, X-C, X-CW, X-A, X-AW	100 $\mu$ L	250 $\mu$ L	10 mg	N.A.	10 mg
	250 $\mu$ L	1 mL	50 mg	500 $\mu$ L	30 mg
	500 $\mu$ L	2 mL	100 mg	1 mL	60 mg
	1 mL	4 mL	150 mg	2 mL	100 mg
	N.A.	8 mL	300 mg	N.A.	200 mg
Strata-XL, XL-C, XL-CW, XL-A, XL-AW	50 $\mu$ L	125 $\mu$ L	5 mg	250 $\mu$ L	10 mg
	125 $\mu$ L	500 $\mu$ L	25 mg	1 mL	30 mg
	250 $\mu$ L	1 mL	50 mg	500 $\mu$ L	60 mg
	500 $\mu$ L	2 mL	75 mg	1 mL	100 mg
	N.A.	4 mL	150 mg	N.A.	200 mg
N.A.	10 mL	250 mg	N.A.	500 mg	

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

## Wash and Elution Solvent Volumes

strata <sup>®</sup> Sorbent Mass	10mg	30mg	60mg	100mg	150mg	200mg	500mg	2 mg Microelution Plates
Practical Minimum Wash and Elution Volume 4 bed volumes	100 $\mu$ L	300 $\mu$ L	600 $\mu$ L	1 mL	1.5 mL	2 mL	5 mL	Recommended Wash Volume: 200 $\mu$ L
Recommended Wash and Elution Volume 8 bed volumes	200 $\mu$ L	600 $\mu$ L	1.2 mL	2 mL	3 mL	4 mL	10 mL	Recommended Elution Volume: 50 $\mu$ L

## Available Formats for Strata-X or Strata SPE

96-Well Plates	Microelution 96-Well Plates	Tubes	On-Line Columns and Cartridges	Large Reservoir Cartridges
				
For a high throughput, automatable SPE option	A high throughput option to increase sensitivity of small 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	Ideal for large volume samples with a small elution volume (Ideal for silica SPE)

## Additional Strata Silica Based Phases for Your Analytes

- C18-E** for extraction of hydrophobic or polar organic analytes from aqueous matrices
- Screen C** for extraction of basic drugs from biological matrices
- Screen A** for extraction of acidic drugs from biological matrices
- Basic Screen** for basic drugs of abuse in a large cartridge reservoir ideal for large sample volumes (LRC)
- RP** an on-line SPE format ideal for quick clean-up for large panels of analytes
- A full line of **Ion-Exchange** sorbents for strong or weak interactions depending on analytes of interest



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