

Technical Notes Available
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* Strata polymeric resins have a larger surface area than Strata silica-based material hence requiring slightly more solvent per gram for processing. The elution volumes are specific to the chemical nature of the analyte being extracted, its concentration in the sample, the chemical nature of the eluting solvent and the bed mass used. The above is a guideline, an elution study should be conducted.

Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix
10 g	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg
5 g	5 mg	5 mg	5 mg	5 mg	5 mg	5 mg	5 mg	5 mg	5 mg
2 g	2 mg	2 mg	2 mg	2 mg	2 mg	2 mg	2 mg	2 mg	2 mg
1 g	1 mg	1 mg	1 mg	1 mg	1 mg	1 mg	1 mg	1 mg	1 mg
500 mg	500 mg	500 mg	500 mg	500 mg	500 mg	500 mg	500 mg	500 mg	500 mg
200 mg	200 mg	200 mg	200 mg	200 mg	200 mg	200 mg	200 mg	200 mg	200 mg
150 mg	150 mg	150 mg	150 mg	150 mg	150 mg	150 mg	150 mg	150 mg	150 mg
100 mg	100 mg	100 mg	100 mg	100 mg	100 mg	100 mg	100 mg	100 mg	100 mg
60 mg	60 mg	60 mg	60 mg	60 mg	60 mg	60 mg	60 mg	60 mg	60 mg
50 mg	50 mg	50 mg	50 mg	50 mg	50 mg	50 mg	50 mg	50 mg	50 mg
30 mg	30 mg	30 mg	30 mg	30 mg	30 mg	30 mg	30 mg	30 mg	30 mg
10 mg	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg
100 µL	100 µL	100 µL	100 µL	100 µL	100 µL	100 µL	100 µL	100 µL	100 µL
300 µL	300 µL	300 µL	300 µL	300 µL	300 µL	300 µL	300 µL	300 µL	300 µL
600 µL	600 µL	600 µL	600 µL	600 µL	600 µL	600 µL	600 µL	600 µL	600 µL
1.2 mL	1.2 mL	1.2 mL	1.2 mL	1.2 mL	1.2 mL	1.2 mL	1.2 mL	1.2 mL	1.2 mL
2 mL	2 mL	2 mL	2 mL	2 mL	2 mL	2 mL	2 mL	2 mL	2 mL
3 mL	3 mL	3 mL	3 mL	3 mL	3 mL	3 mL	3 mL	3 mL	3 mL
4 mL	4 mL	4 mL	4 mL	4 mL	4 mL	4 mL	4 mL	4 mL	4 mL
10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL
20 mL	20 mL	20 mL	20 mL	20 mL	20 mL	20 mL	20 mL	20 mL	20 mL
24 mL	24 mL	24 mL	24 mL	24 mL	24 mL	24 mL	24 mL	24 mL	24 mL
30 mL	30 mL	30 mL	30 mL	30 mL	30 mL	30 mL	30 mL	30 mL	30 mL
60 mL	60 mL	60 mL	60 mL	60 mL	60 mL	60 mL	60 mL	60 mL	60 mL
120 mL	120 mL	120 mL	120 mL	120 mL	120 mL	120 mL	120 mL	120 mL	120 mL

Sorbent Wash and Elution Volumes*

Suggested Loading Capacity: Silica-Based Sorbents

Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix
50 mg sorbent per 250 µL	50 mg sorbent per 500 µL	100 mg sorbent per 100 mg tissue	500 mg/100 mL - 500 mL sample
Blood, serum, plasma	Urine	Filtered tissue homogenates	Environmental Samples
Water (particulate-laden) rivers, runoff, etc.	Water (particulate-free) drinking	Water (particulate-laden) rivers, runoff, etc.	Soil extracts

Suggested Loading Capacity: Polymer-Based Sorbents

Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix	Sample Matrix
30 mg	30 mg	60 mg	200 mg	500 mg	500 mg
250 µL	1 mL	100 mg	100 - 400 mL	100 g	100 g
Blood, serum, plasma	Urine	Filtered tissue homogenates	Environmental Samples	Water (particulate-free) drinking	Water (particulate-laden) rivers, runoff, etc.
125 µL	500 µL	50 mg	Strata-X, X-C, X-CW, X-A, X-AW	50 - 200 mL	50 g

Sample Pre-treatment Recommendations

Sample Matrix	Biological Samples (Liquid)	Biological Samples (Solid)
Water (waste, river, etc.)	Fruit, vegetable, herbs	Organic tissues, feces, GI contents
Butter to appropriate pH and filter particulates from sample.	Homogenize with organic or aqueous solvent depending upon mechanism for the dissolution solvent (hexane = polar mechanism; aqueous = non-polar mechanism; methanol/ACN = either non-polar or polar after proper dilution).	Homogenize with organic or aqueous solvent depending upon mechanism for the dissolution solvent (hexane = polar mechanism; aqueous = non-polar mechanism; methanol/ACN = either non-polar or polar after proper dilution).
	Oil based: Dissolve in non-polar organic (hexane) and extract via polar SPE.	Urine, whole blood, serum, plasma, bile, etc.
	Water based: Dissolve in water or water miscible organic (methanol) and extract via non-polar SPE.	Dilute sample 1:2 with appropriate buffer, precipitate proteins if proteinaceous (ZnSO ₄ or ACN), hydrolyze urinary glucuronides, disruption of protein binding (sonication, enzymatic, acids/bases).
	Soil, sludge	
	Homogenize with organic or aqueous solvent depending upon analyte solubility. Settle, decant, and filter supernatant; perform Soxhlet extraction.	
	Ointments, creams	
	Oil based: Dissolve in non-polar organic (hexane) and extract via polar SPE.	
	Water based: Dissolve in water or water miscible organic (methanol) and extract via non-polar SPE.	

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Available formats:

Tubes	requires 12 or 24-position vacuum manifold, or syringe and adapter cap, or robot
96-Well Plates	requires 96-well plate manifold or robot
Giga™ Tubes	requires Tall Boy™ manifold
On-line SPE	requires HPLC system and switch valve

Products are available worldwide

- | | | |
|------------------------|------------------|----------------------|
| Albania | Guatemala | Paraguay |
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| Argentina | Hungary | Philippines |
| Australia | Iceland | Poland |
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| Barbados | Italy | Russia |
| Belarus | Jamaica | Saudi Arabia |
| Belgium | Japan | Serbia |
| Bolivia | Jordan | Singapore |
| Bosnia and Herzegovina | Kazakhstan | Slovakia |
| Brazil | Kenya | Slovenia |
| Bulgaria | Kuwait | South Africa |
| Canada | Latvia | South Korea |
| Chile | Lebanon | Spain |
| China | Lithuania | Sri Lanka |
| Colombia | Luxembourg | Sweden |
| Costa Rica | Macedonia | Switzerland |
| Croatia | Malaysia | Taiwan |
| Cyprus | Malta | Thailand |
| Czech Republic | Mauritius | Tunisia |
| Denmark | Mexico | Turkey |
| Dominican Republic | Montenegro | Turkmenistan |
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| Estonia | Nicaragua | Uruguay |
| Fiji | Nigeria | USA |
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| Germany | Pakistan | Vietnam |
| Greece | Panama | |
| | Papua New Guinea | |

Trademarks
Strata is a registered trademark, Giga, Presston, and Tall Boy are trademarks of Phenomenex. Strata-X is patented by Phenomenex. U.S. Patent No. 7, 119,145
FOR RESEARCH USE ONLY. Not for use in clinical diagnostic procedures.

Terms and Conditions
Subject to Phenomenex Standard Terms and Conditions which can be viewed at www.Phenomenex.com/TermsAndConditions

THANK YOU

for choosing Strata® Silica and Strata-X Polymeric Sorbents



Phenomenex products are available worldwide.

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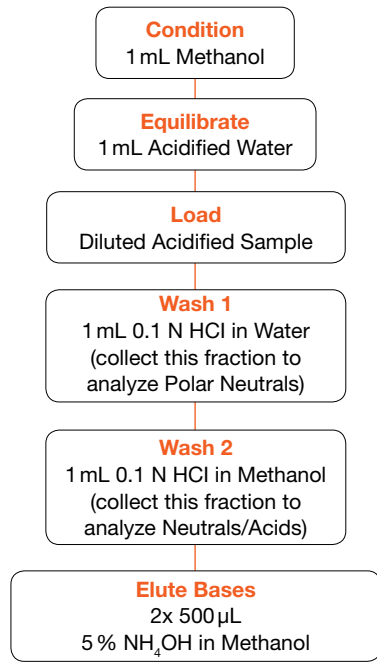
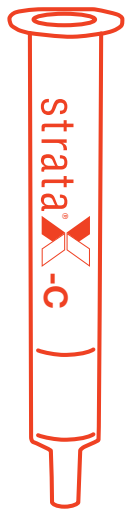
QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =



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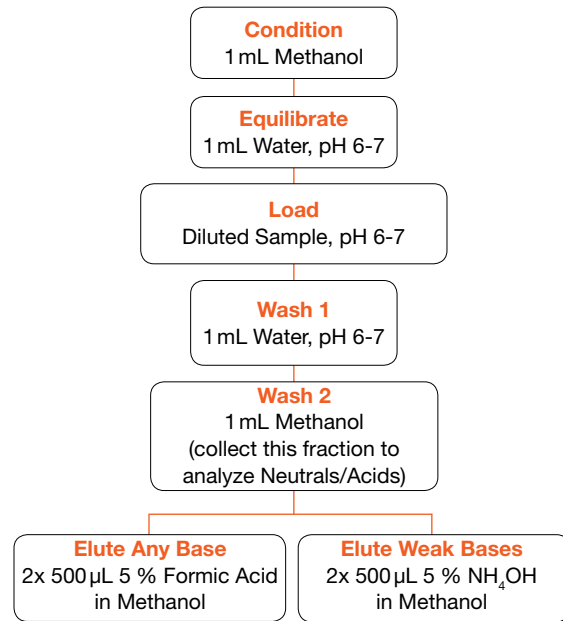
Strata®-X-C / Strata-XL-C

Strong Cation Exchange & Reversed Phase
for Bases with $pK_a \leq 10.5$



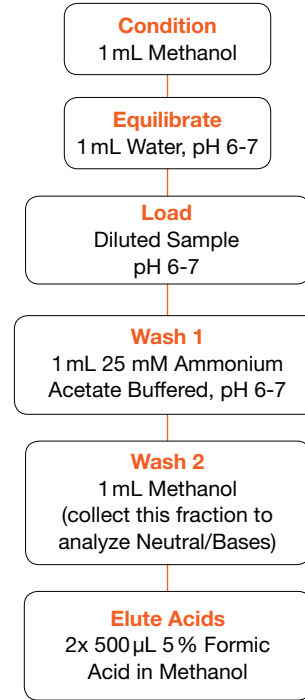
Strata-X-CW / Strata-XL-CW

Weak Cation Exchange & Reversed Phase
for Bases with $pK_a > 8$



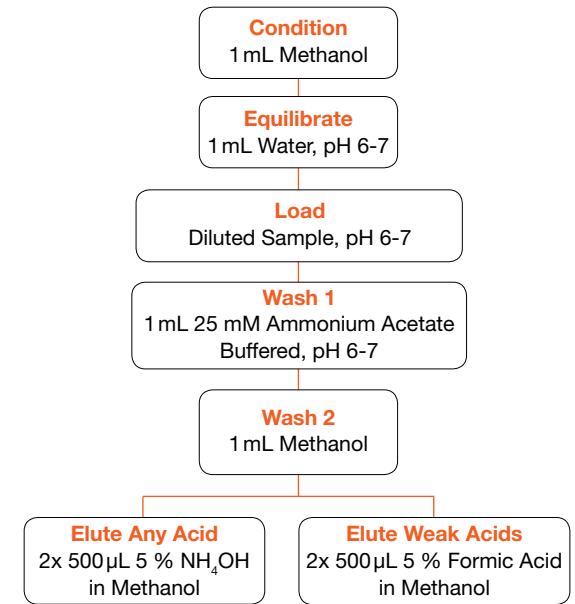
Strata-X-A / Strata-XL-A

Strong Anion Exchange & Reversed Phase
for Acids with $pK_a > 2$



Strata-X-AW / Strata-XL-AW

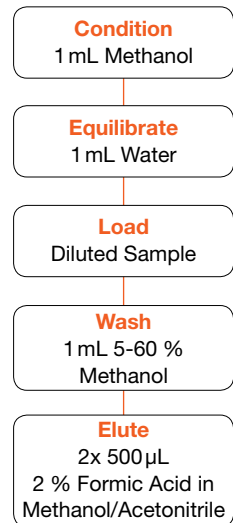
Weak Anion Exchange & Reversed Phase
for Acids with $pK_a \leq 5$



Use our online SPE Method Development Tool to create a customized method. Visit www.phenomenex.com/info/mdtool

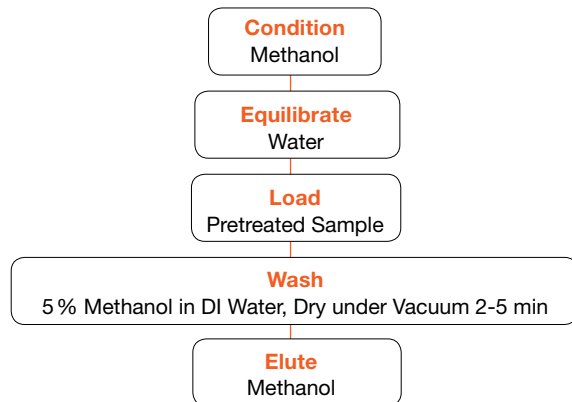
Strata-X / Strata-XL

Reversed Phase
for Neutral Compounds



Strata® C18, C8, Phenyl, CN, SDB-L

Reversed Phase
for Hydrophobic Compounds

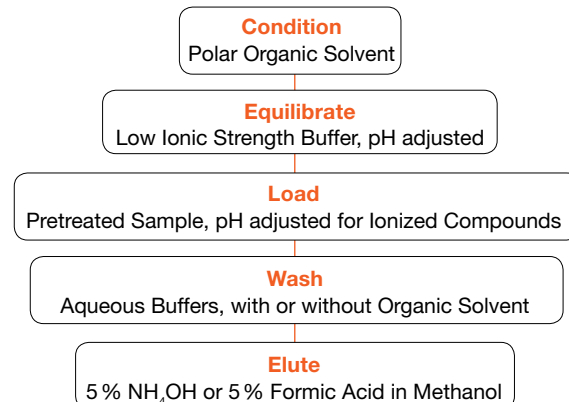


Suggested Elution Solvents	Polarity
• THF	
• Acetone	
• Ethyl Acetate	
• Acetonitrile**	
• Isopropanol	
• Methanol	

** when using aromatic sorbents such as Phenyl or SDB-L, acetonitrile is a stronger elution solvent than methanol

Strata SCX, WCX, SAX, NH₂ (WAX)

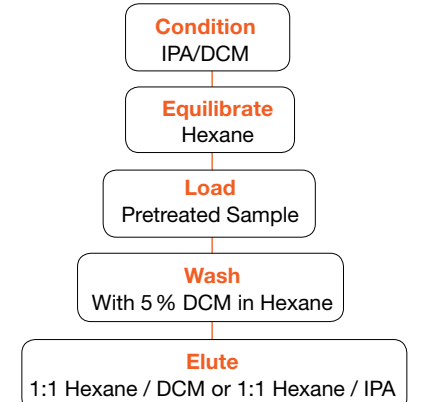
Ion Exchange
for Charged/Ionized Compounds



Suggested Elution Solvents
For complete ionization sample should be adjusted 2 pH units above or below the pK_a of analyte. pH can be used to effectively neutralize sorbent or analyte. This can be accomplished by combining 2% strong acid or base with a water miscible organic solvent such as methanol or acetonitrile . [As an alternative method, high ionic strength buffer can be used to displace the analyte, which may not be ideal for analysis by sensitive detection instruments such as a mass spec.]

Strata Silica, Florisil, NH₂, CN

Normal Phase
for Polar Retention Mechanisms



Suggested Elution Solvents	Polarity
• Hexane	
• Methylene Chloride	
• THF	
• Acetone	
• Acetonitrile	
• Isopropanol	

* Strata-X based on 30 mg/1 mL sorbent mass. The above is a convenient starting point for SPE method development. Further optimization may be required to tailor the method to your specific needs.