# Ion exchange chromatography

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Ziru Li

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The following protocol is to purify plant extract on a commercial strong anion exchange column (Supelco LC-SAX).


Supelco - Guide to S...


Supelco SPE products

1. Set up the column in a vacuum flask.
2. Condition the column with 2 x column volumes of sample buffer.
3. Run the sample through the column and collect the flowthrough.
4. Wash the column with 2 mL of sample buffer and collect the flowthrough in 1mL fractions.
5. Elute the column with 5 – 10 x column volumes of elution buffer (typically a strong acid) and collect in 1 mL fractions.

Note:

1. The vacuum needs to be broken to collect each fraction. (Optional) A fraction collector can be used.
2. Plant materials can be processed in bulk by making a column of your own using the same packing materials. The column is typically a tall flash column with a switch valve at the end so that fractions can be collected. A cotton ball is first placed at the bottom of the column, then a slurry of packing material and sample buffer is added to the column. The sample buffer is then allowed to flow through the column leaving the column bed packed tight. Another cotton ball is placed on top of the column and there you have your column.