



Solid Phase Extraction with Triathlon:
Sample cleaning, Enrichment, Analysis
and Fractions Collection:
all this with one instrument

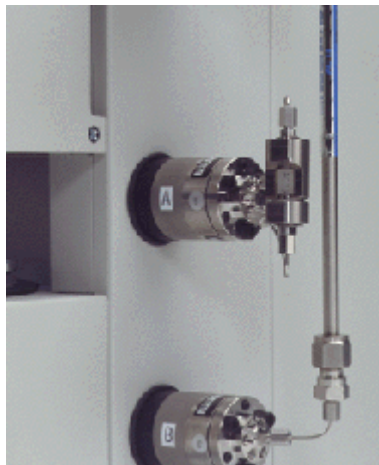
Description

The preparation of the samples with complex matrix is increasingly changing from liquid-liquid-extraction into solid phase extraction. The advantages are obvious:

- easier, faster handling without manual steps
- much lower costs per analysis and less environmental impact
- reliable because completely on-line
- completely automation possible
- considerably higher sensitivity because the sample is transferred absolutely without dilution on the main column

The autosampler **Triathlon** by Spark is predestined for this task because the sample tray segments with vials of 4 or even 10 mL enables to use larger sample volumes. You can easily concentrate or pre-clean your samples with 2 additional switching valves that can be operated via the control panel of the autosampler or via the PC control software that is available optionally.

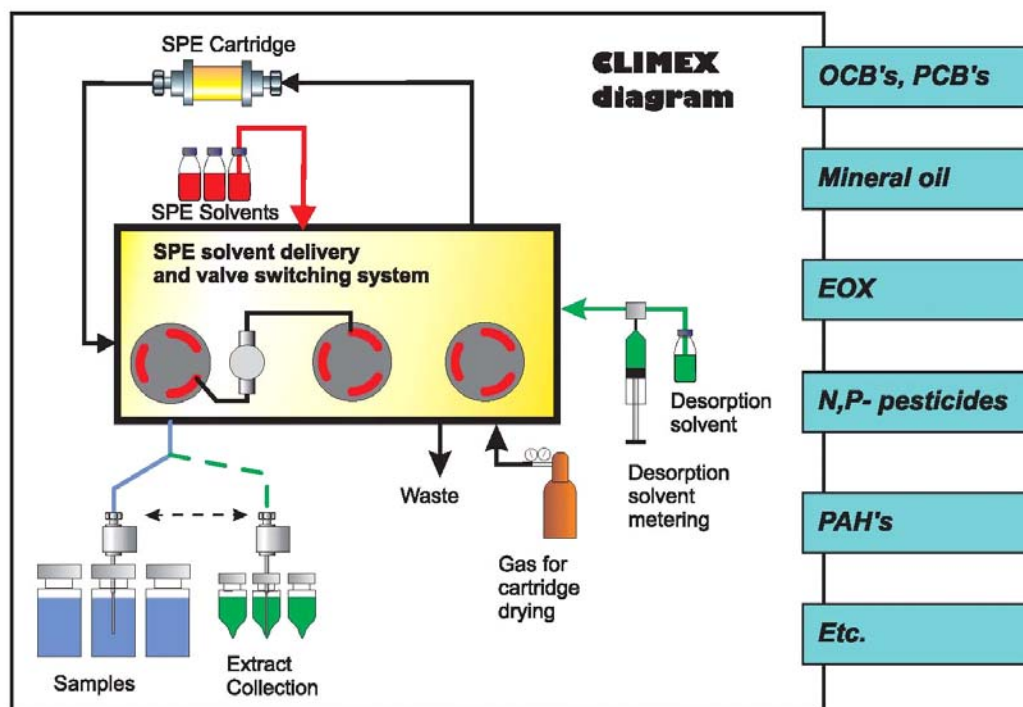
The complete solution



The holder for the pre-column, that doesn't necessitate any tools, not only facilitate changing the pre-columns but also drop your laboratory costs. The pre-columns are available with almost all current separation media.

Sample cleaning and concentration occur via the 2 additional high pressure switching valves that are thermostated together with the extraction columns within the column heater Mistral. Thus the system is not only more reliable but also more reproducible and more competitive.

Das Climex™ - System



The **Climex system** consists of 1 Triathlon autosampler, equipped with high pressure switching valves, and the additional modules necessary for every special application. In the normal case the valves are 6-ways high pressure valves. Depending on the requirements they can be replaced by 10-ways valves.

A further possibility is a tandem processing. Thereby 2 extraction columns are alternately loaded with sample. While column No. 1 is extracting, column No. 2 is connected to the main column, is analysed and vice versa. This processing is also called "online processing". The sample doesn't leave the analysing system. No sample gets lost. You get a maximum utilization of the sample.

The second possibility consists of first extracting all samples and then preparing them for the further analysis. The extracts can be transferred, like in a fraction collector, to new sample vials and can be stored, tightly sealed and cooled, till the final analysis.

The third possibility is the automatic sample preparation for a following GC analysis. The short extraction columns can be dried with nitrogen and then desorbed with a GC compatible solvent. Later you only need to put the sample vials in the GC autosampler.

**Describe us your problem or your project:
we offer you a complete solution from A to Z !**