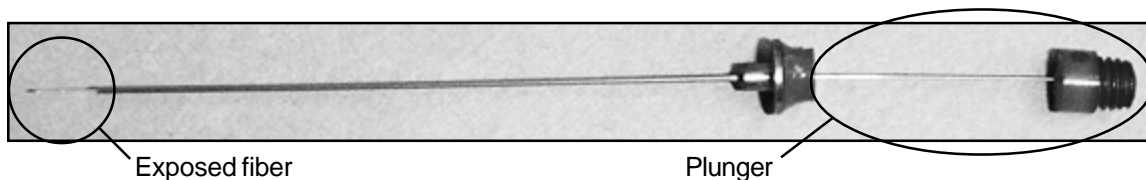


Solid Phase Microextraction

SPME injections may be made with the following SRI syringe injectors: split/splitless, PTV, and heated vaporization.



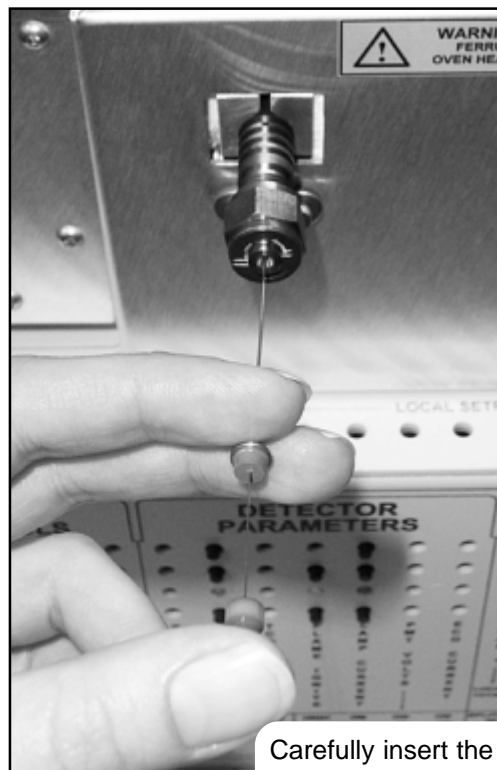
Supleco manual SPME fiber holder
(www.sigmaaldrich.com/Brands/Supelco_Home.html)

Pictured above is a typical SPME fiber assembly, and a Supleco SPME holder. SRI prefers to use the fiber without a holder, after removing the spring. Without the holder, the SPME assembly is lighter, and easier to leave in the injection port for desorption and conditioning. Whether you use a holder or not, be sure to handle the fragile fiber with care.

1. Load the SPME fiber by exposing it to a sample inside a vial. The length of exposure time depends upon the sample and the fiber coating.

2. Pull the fiber back into the barrel. Inject into a hot injector by inserting the syringe, pushing the plunger to expose the fiber in the megabore column, and letting it remain there long enough to release all the analytes. Pull the plunger back in so the fiber doesn't break, and withdraw the syringe.

3. Condition the SPME fiber between runs by leaving it in the hot injector port long enough to remove any analytes.



Carefully insert the SPME syringe into the hot injector port and push the plunger

4. SRI recommends that you do SPME injection directly onto a megabore (0.53mm) column, like any other syringe injection. If you want to use a narrowbore column, SRI can provide you with a simple adaptor (see next page).

GC INJECTORS

SPME Injection

Narrowbore Column Adaptor

Using this simple adaptor, you can perform SPME fiber injections into narrowbore columns with the following SRI heated syringe injectors: split/splitless, PTV, and heated vaporization.

The adaptor consists of a length of 0.53mm capillary column and a small piece of 0.50mm ID silicone tubing. Insert the narrowbore column into the 0.53mm section. Slide the silicone tubing to over the joint. Insert the end of the adaptor into the graphite ferrule and swagelok injector fitting.

The megabore injector liner provides high linear carrier gas velocity to sweep the desorbed analytes onto the column.

