

Pulling a Capillary Tip for LC/MS

1.0 Overview

- 1.1 This SOP is written to outline the steps taken to make tips for use on the Thermo equipment. The procedure used to pull tips on the capillary puller is described.

2.0 Reagents and Materials

- 2.1 Fused silica tubing - 100 μ m I.D, 50 meters; Polymicro Technologies - Part #2000023.

3.0 Apparatus/Instrumentation

- 3.1 Capillary Puller – Sutter Instruments P-2000.
- 3.2 Microscope – Fisher Scientific Stereomaster Microscope, 10X and 30X Total Magnification, Fisher Scientific Cat #1256212.

4.0 Procedure

- 4.1 To pull tips:
 - 4.1.1 Turn on the capillary puller. The manufacturer recommends opening the lid prior to turning on the puller to prevent shocking the laser. For the most reproducible results, allow the unit to warm up about five minutes before pulling any capillary tubing.
 - 4.1.2 Place ~28cm of 100 μ m I.D. fused silica tubing into the grooves on the puller, release each puller bar from their catch position, pull both bars towards each other and tighten clamps to secure the tubing in place.
 - 4.1.3 Close the lid. The laser will not turn on unless the lid is fully closed. Enter Method 99 and press Pull.
 - 4.1.4 The red light should blink, meaning the capillary tubing is lined up correctly. If the red light does not blink, readjust the capillary tubing. The instrument will pull the tubing. Remove the capillary tubing from the puller and check that the tips are good.
 - 4.1.5 Turn off instrument. Keep the capillary puller turned off when not in use.