

1.0 Overview

- 1.1 This SOP is written to outline the steps taken to make frits for use on the Thermo equipment.

2.0 Reagents and Materials

- 2.1 Fused silica tubing - 100 μ m I.D, 50 meters; Polymicro Technologies - Part #2000023.
- 2.2 KASIL 1 Potassium Silicate Solution (29.1%); PQ Corporation.
- 2.3 Formamide, Sigma Ultra; Sigma-Aldrich - Cat #F-5786.

3.0 Apparatus/Instrumentation

- 3.1 Block Heater – VWR Cat #12621-108.
- 3.2 Microscope – Fisher Scientific Stereomaster Microscope, 10X and 30X Total Magnification, Fisher Scientific Cat #1256212.

4.0 Procedure

- 4.1 To make frits:
 - 4.1.1 Cut 100 μ m I.D. fused silica tubing into ~15cm lengths.
 - 4.1.2 Combine 170 μ L KASIL 1 with 30 μ L Formamide (add KASIL first) in Eppendorf tube and mix for a few seconds.
 - 4.1.3 Working quickly, place each capillary tube into the KASIL/Formamide solution. Capillary action will move the solution up the tube. Fill tube with at least 2cm of solution.
 - 4.1.4 Place capillary tubes under a heating block at 90°C. Leave overnight.
 - 4.1.5 Remove tubes from heating block and check each for consistency under a microscope.
 - 4.1.6 Using the bomb, pack frit with ~ 6cm of C18 resin.
 - 4.1.7 Check frits under microscope to ensure the packing material is uniform throughout and that no foreign matter is present.