

Cleaning Cuvettes

Kay Finn

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After each use, cuvettes should be washed well with H₂O and rinsed with MeOH, then dried on the cuvette washer until they appear dry. Store in cuvette box.

Using the cuvette washer: **Always check to see that the wash spray is getting to the bottom of the inverted cuvette. Watch the spray and adjust the placement of cuvette, or press gently down on the cuvette to get the spray all the way to the top (bottom of the cuvette).**

When cuvettes develop a build up on the interior walls, they can be cleaned with acid solutions:

* Try a dilute acetic acid solution first: soak overnight in 3M acetic acid, rinse well.

If this does not work (i.e., you can still see something on the wall of the cuvette, or the water blank has an unusually high absorbance or fluorescence), try 50% H₂SO₄:

** Use gloves and goggles, and do this in the hood:*

Put cuvette in a glass beaker and add 1/2 vol H₂O by eye with wash bottle.

Add H₂SO₄ with dropper to the top, cover with parafilm, and invert to mix.

The cuvette will feel warm. Cover the beaker with parafilm. Let sit for at least 1 hour.

Rinse out into running water at back of hood.

Rinse several times, then put on cuvette washer to rinse more.

Sulfuric acid is thick and sticky, so rinse lots and check with pH paper to be sure acid is gone.

You can use stronger acids if the cuvette is still dirty; see recommendations from Hellma.

DO NOT USE BASE FOR CLEANING!

This is a copy of email from Hellma tech help:

Kay:

Do not use NaOH. It will remove the outer polished layer. Use conc. H₂SO₄, HNO₃ or Chromic Sulfuric Acid. **DO NOT USE STRONG BASES!**

Best regards,
Ed Roth
Hellma Cells, Inc.

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