

## **Xtal loops cleaning procedure**

The best and easiest way to clean loops is to soak them in a bath of a very diluted detergent-containing solution. A standard laboratory glassware/ plasticware cleaner is adequate.

Soak the CryoLoop in a 0.5-2.0% detergent solution for 15 minutes or more. The optimal length of the soak needed will be determined by what residual materials are left on the mount or tool (protein, etc.) and how long it has been sinced they were last used. The sooner you clean them after use the easier it will be.

Then, rinse in a bath of water to remove the detergent. This step should be repeated 1 - 2 times until the detergent is completely removed. Use H2Omq for the last time.

To dry the tips after cleaning, let them air dry for about 15 - 30 minutes. You can briefly dip in ethanol/isopropanol for faster drying.

**DO NOT:** sonicate for extended times. Sonication for a few minute or so is ok, but sonication for long periods can damage some tips. Using an enzyme-containing detergent, sonication should be unnecessary.

**Avoid using brush**. In the rare case when soaking doesn't remove deposits, wicks can be used for delicate scrubbing of the CryoLoop. Dip the end of the wick into a detergent solution or 2-Propanol, and gently clean the nylon CryoLoop.

**Avoid blow-drying**. If the nozzle is placed too close to the tip, the resulting turbulent drag force can damage the tip. Keep the nozzle at least 20 cm away from the tip.

http://www.jenabioscience.com/images/7f32e65196/Cleaning\_Instructions.pdf http://hamptonresearch.com/documents/product/hr001359\_cryoloops\_pdf.pdf

## Additional Notes

We shouldn't soak the whole piece (base + loop) into a common detergent diluted in water. In fact, what the references above are pointing is that we need an special detergent enzyme-containing (Alconox-like) and at very low concentration (0.5-2%) and just soaking the cryoloop but not the base to avoid oxidation. Thus as we don't have these special detergent (Mistol doesn't contain any protease...), we should just soak the cryoloops into ethanol containing solution (regular one we have at the lab should works) during 15-30 min and by compressed air remove debris. Following Hampton recommendation we should hold the tip of the air sprayer from than 7-10 cm.

To soak just the cryoloop we should mount a system like Figure 1 in Jena.pdf



document but obviously home-made. In this sense something like the picture below should works:

