Cleaning and Reconditioning the Pedestals

CLEANING

Clean the pedestals of the Thermo Scientific NanoDrop™ 1000 Spectrophotometer or the NanoDrop™ 8000 Spectrophotometer using the following procedure:

1. Apply 5 ul of dH_20 solution to the bottom pedestal.
2. Lower the upper pedestal arm to form a liquid column; let it sit for approximately 2-3 minutes
3. Wipe away the water from both the upper and lower pedestals with a clean lab wipe..

Note: Typically dH_20 is sufficient for removal of samples that have dried on the optical pedestals. There are a few cases (i.e. dried proteins) that may require a more rigorous cleaning protocol. For these cases, we recommend that 0.5M HCl be substituted for dH_2O in the above procedure. After using HCl, repeat the process with 5 ul of dH_20 to remove any residual HCl.

Do not use detergents or isopropanol as cleaning agents as their use may result in the pedestals becoming unconditioned. When the pedestal becomes unconditioned sample droplets will 'flatten-out' instead of 'beading up' when applied to the bottom pedestal.

Some buffer components and reagents as well as detergents may cause the pedestal surfaces to become unconditioned. We have noted that routine use of the Bradford reagent may result in difficulty forming columns with 1 ul samples.

RECONDITIONING

Use the instrument pedestal reconditioning kit, PR-1, as a rapid means of reconditioning the pedestals when the surface properties have been compromised and liquid columns break during measurement.

1. Open the vial containing PR-1 and use the applicator provided in the kit to remove a pin-head sized amount of the compound. Apply a very thin, even layer of PR-1 to the surface of the upper and lower pedestals and let dry (30 secs).
2. Fold a clean, dry laboratory wipe into quarters and remove the PR-1 by aggressively rubbing the surface of the upper and lower pedestals until all compound residue is removed. Note: The appearance of black residue on the lab wipe is normal.
3. Remove the excess lint around the pedestal. For the NanoDrop 8000 it is also important to remove the lint from the light source window shown by the upper red arrow.




Test the effectiveness of the re-conditioning by pipetting a 1ul sample of dH_2O (using a calibrated 2 ul pipettor) onto the lower measurement pedestal. The figure to the far right shows 1ul samples of dH_2O on properly conditioned pedestals. Note: The images above show the PR-1 as applied to the NanoDrop 8000 pedestals.

The use of a calibrated 2 ul pipettor fis recommended for sample loading. Although the instrument was designed for 1 ul samples, using larger volumes (1.5-2.0 ul) will often overcome the inherent surface tension properties associated with some detergent based or volatile samples and eliminate problems with column breakage.

Note: Use an 8-channel pipettor when loading multiple samples onto the NanoDrop 8000 to minimize evaporation due to delays in sample loading. It is recommended that spectrophotometric measurements be made immediately after pipetting samples onto the pedestals as delays can compromise accuracy.

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