



MICROSCOPY 101

We appreciate the response to this publication feature - and welcome all contributions. Contributions may be sent to Phil Oshel, our Technical Editor at:

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Mold Release Solution

We originally (long ago) kept our molds (at that time they were five-sided metal "boats" of various sizes which had been manufactured by the machine shop) in soapy water, and merely drained out the excess fluid just prior to filling them with paraffin. After the paraffin was sufficiently hardened, we plunked the blocks in ice water, and the paraffin would eventually float out of the mold. It worked very well, but was messy, and occasionally block surfaces were minimally deformed due to soap bubbles remaining in the corners of the molds. When my level of distress over the illogically ever-increasing price of scientific supplies reached the unbearable, I came up with the following soap spray, and successfully used it with Tissue-Tek molds for years.

Mix a solution of 5% green dish washing soap (such as Palmolive) in

50% Ethanol, then put it into a pump spray bottle (available from any housewares department). This works *at least* as well as the outrageously expensive stuff sold as "Mold-Release Spray", and contained no CFC's or other "evils".

Joanne Lahey, Battelle Duxbury Operations

Negative Stain Procedure For Fixed Viruses

- 1) Put a drop of fixed virus suspension onto your coated grid for about 60 seconds. Then very slowly suck up virus suspension with a Whatman filter paper (cut filter paper into triangles, with sharp arrow point like tip).
- 2) Then float grid containing virus onto a drop of 0.05 M sodium cacodylate buffer (2 x 2 minutes wash).
- 3) Wash with double distilled water (2 x 2 minutes)
- 4) Negative stain for 30 seconds with 2% Phosphotungstic Acid.
- 5) Dry and view

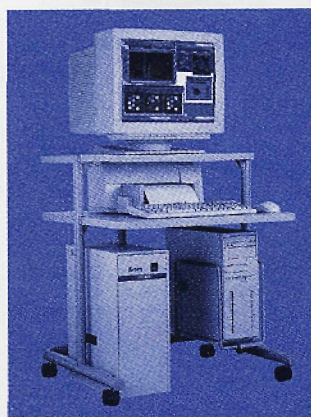
Vijay H. Bandu, University of Natal, South Africa

A Suggestion for Increasing the Intensity of Staining in Hydrophobic Resins Such as Spurr's

The stain solution should be made up at high pH so that protons in solution don't compete with stain molecules for binding sites:

0.5% toluidine blue in 0.1% sodium carbonate, pH 11.1

The metachromicity of toluidine blue depends on water molecules being present, so mounting media like Entellen (Xylene base?) ruin this effect. My trick is to exhale fairly forcefully onto the sections just before adding a solvent-based mounting medium. This adds just enough water so that colors appear as desired. If you do enough slides at once, the hyperventilation



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