

Embedding

Embedding includes the gradual removal of the dehydrating agent or transitional solvent and the infiltration of the cell's interstices by a resin monomer. In selecting a resin, consideration should be given to numbers of qualities which are deemed essential for a "good embedment." The monomer selected should be of low viscosity to assure rapid and homogeneous infiltration. It should be chemically inert with respect to the cells and miscible with the dehydrating agent or the transitional solvent. Its accelerator or catalyst should produce uniform polymerization without causing translocation of cellular components. The embedment should be of such consistency that it sections easily with either glass or diamond knives. It should not interfere with the heavy metal stains used to increase the cell's mass density (ie: contrast). Finally, it should be highly electron transparent and stable under the beam.

A word of caution: Many of the monomers and some of the additives used to produce the final embedding mixture are known to produce contact dermatitis. Therefore, the use of disposable gloves and working in a vented hood is highly recommended. Most of the resins will harden in time, so immediate and thorough cleaning of all glassware and other areas of contact is essential. Under no circumstance should any of the resins be disposed of in the sink.