

PICOPlankton Preservation Method

Written 10/16/98, WKoz; updated 9/16/08 WKoz

- I. Store water sub-sampled from zodiac (60%) in refrigerator until ready to filter
- II. Set up filtration manifold and slides
 - A. 500 ml side arm flask in plastic tray with 100ml plastic funnel cup and hand vacuum pump
 - B. One GF/F filter on bottom, one Poretics 0.2 μ black polycarbonate membrane filter
** use only "gluteraldehyde" forceps **
 - C. One 25 ml plastic graduated cylinder for measuring Gluteraldehyde
 - D. One 50 ml plastic graduated cylinder for measuring sample water
 - E. One slide labeled with date, station, %, depth sampled and volume filtered for each sample
 - F. Set out immersion oil dropper, #0 cover slips, and 50% gluteraldehyde (stored in refrigerator)

*** PLEASE BE ESPECIALLY CAREFUL WHEN HANDLING GLUTERALDEHYDE
AND ASSOCIATED SUPPLIES – BESIDES BEING BAD FOR YOU, IT IS DIFFICULT
TO CLEAN – WORK UNDER A HOOD, WEAR GLOVES AND CHANGE THEM IF
THEY GET STICKY! ***

- III. Filter Sample
 - A. Rinse 50 ml graduated cylinder with 5-10 ml sample water
 - B. Measure 50 ml sample and pour into filter cup
 - C. Measure 5.0 ml gluteraldehyde and pour into sample water in filter cup
 - D. Wait 20 minutes
 - E. Filter gently with hand vacuum pump until sample completely through filter
- IV. Prepare slide
 - A. Place SMALL drop of immersion oil on slide
 - B. Lay only the 0.2 black polycarbonate membrane filter on drop of oil
 - C. Place another SMALL drop of oil on filter center
 - D. Carefully lay one cover slip on top of filter, tapping to spread out oil
 - E. Store slide flat in refrigerator for at least 48 hours
 - F. Move to labeled slide container in -80 C freezer after minimum of 48 hours in refrigerator
- V. Record volume filtered and your initials in Logs
- VI. Dispose of any waste in 5% gluteraldehyde/seawater collapsible waste container