Equipments to be prepared:

- Biological object slides
- Cover glasses (two sizes are available: 20x20 mm and 24x40 mm)
- Tweezers
- Injection needle
- Weighting paper
- Permanent marker
- Hot plate (without magnetic stirrer)

Chemicals:

Meltmount: Cargille Meltmount (n = 1.66)

Procedure:

1. Wear a lab coat and use gloves.
2. The room should be well-ventilated.
3. Clean the table and prepare everything as shown on Fig. 1A.

Figure 1A: Necessary objects & (B) preparation and preheating of the vial filled with Meltmount.

4. Cover the heating plate with aluminium foil.
5. Preheat the small bottle with Meltmount on ~100 °C applying stage 2 on the magnet-free heater at 250 W (it takes ca. 20 min.).
6. Do not use the original bottle with Meltmount.
7. Cover the heating plate and the small vial with aluminium foil like a tent (see Fig. 1 B)
8. If necessary stir the Meltmount with the small glass rod occasionally while heating.
9. Label the object slides with your sample name (with a diamond pen and a permanent marker) and also write the refractive index of the Meltmount applied (mostly n=1.66) on the glass slide.
10. Preheat the object slides and also the cover glass.

11. Put 2-3 drops of Meltmount on the slide (depends on the size of the cover glass). Place your sample not in the middle, but at ca. 1/3 of the glass, as some microscope can not position in the middle of biological slide!

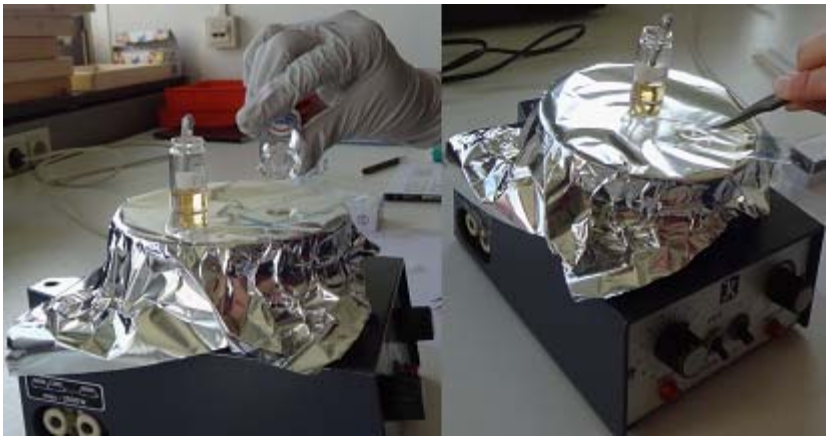

Figure 2: Scattering of the sample and covering with a cover glass.

12. Ensure that the embedded aliquot represents the sample. The best procedure is the fractionation-free splitting of the entire heavy mineral fraction and embedding e.g. 1/4, 1/8, 1/16 ... part of it. A quicker, but and rather representative method that you start pouring out the HM from the vial on a piece of weighting paper, then stop it ca. at 1/3 of the material was leaving the vial, but keeping the vial in the tilted position. Then scatter grains on the Meltmount (Fig. 2A) and mix it with the needle. In this way you sample the main mass of the HM sample, and avoid that the big and well rounded grains or the flat and well sticking, adhesive grains are biasing the embedded aliquot.
13. Wait until the Meltmount has built a uniform surface like a dome.
14. Take the cover glass with a pair tweezers and put it from one side on the Meltmount so that the air can escape; the Meltmount should seal the outer edge (Fig. 2B).
15. The Meltmount stays viscous after cooling, store it always horizontal.

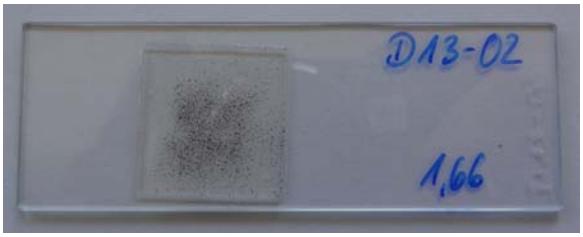

Figure 3: Finished immersion mount.