Working with DiD / DiI dyes

Where it is desired to mark the track of a probe shank(s) within the brain, the fluorescent lipophilic dyes, DiI (Cat. #42364 Sigma-Aldrich) or DiD (Cat# D7757 Invitrogen) can be used (dissolve in ethanol 96% to make 10% solution).

Method (1)

1. Securely mount the probe under a bench-top magnifier or low-power microscope.
2. Orient the back-side of the probe uppermost; i.e. the non-electrode side of the shank(s) – electrodes will be visible as dark-coloured rectangles / squares.
3. To apply dye, use a precision micro-brush to apply a thin coat of dye to the back-side of the shank(s) to be marked.

Method (2)

1. Briefly dip the probe shank in to the dye solution and allow to dry

In practice there is little to no difference between these two methods in terms of performance. Painting the back-side of the probe is the 'traditional' approach although in our experience, electrode performance is unaltered by dye-coating.

Cleaning / Removal of Dye

For dye removal and cleaning, following the enzymatic cleaning steps outlined in our Acute Probe User Guide, alternately rinse your probe with isopropyl alcohol followed by distilled water until you have removed the dye (how long this takes depends on how much you applied originally) - if you have any stubborn / sticky dye then you can use a small (clean!) brush to aid with careful removal of the dye, again under a bench-top magnifier or low-power microscope.