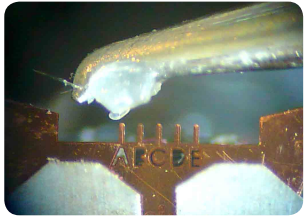


SEMGLU

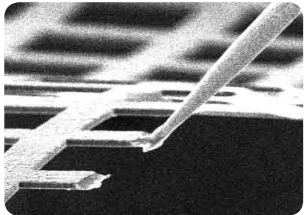
Preparation method one

Under a light microscope, use a sharply pointed tool to transport a very small portion of glue onto the desired mounting points on your sample or object that is to be glued to e.g. a TEM grid.



Preparation method two

Use a sharply pointed tool to transport a small portion of glue from the SEMGlu stub to a second stub. Move this to SEM and use a micromanipulator fitted with a probe tip to transport glue to the desired location on your sample. Having a reserve of glue inside the SEM allows you to carry out multiple bonding tasks in various places without requiring ex-situ preparation of your sample beforehand.

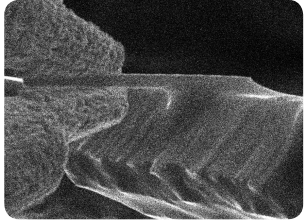


Continued on reverse side...

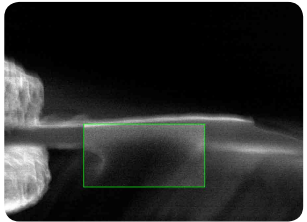
Application

Use low electron beam currents ($< 100 \text{ pA}$) and low magnification while manipulating the glue to prevent it from hardening.

Bring the object that is to be glued in contact with the glue.

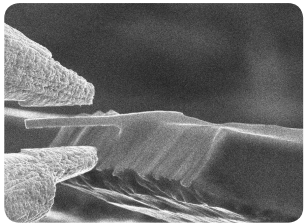


Cure the glue using electron beam radiation. Start the curing process by increasing the electron beam current. Recommended values are 1 nA beam current (FEI) or $60 \text{ }\mu\text{m}$ aperture (Zeiss) at a magnification of about 50,000. You can also use a window to expose the glue to the electron beam instead of using high magnification.



Wait for approximately one minute to ensure a strong bond.

After curing, the bond strength is about 2 mN .



In general, the beam current affects the time needed to cure the glue, while the acceleration voltage affects the beam's penetration depth. To fully cure the glue high beam currents and large acceleration voltages are required.