

QDry Recipe guide



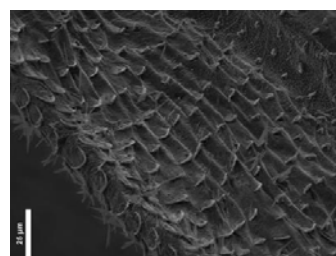
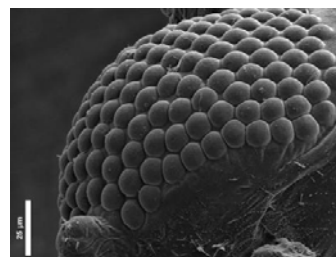
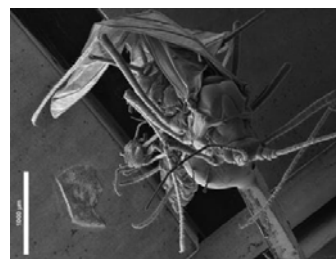
Aphid (Rose aphid)
Marcosiphium rosae

Applications - Insects

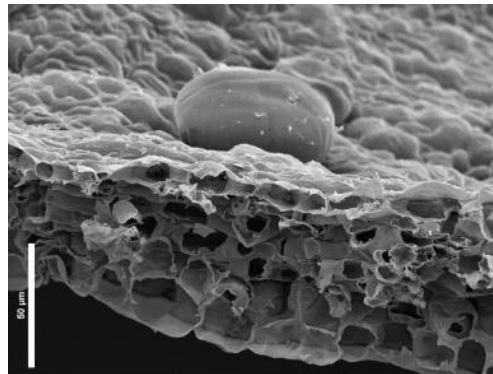
Insects are one of the most difficult samples to prepare for Scanning Electron Imaging (SEM). During the preparation process, extra care must be taken when handling samples, as insects' fragile bodies can be damaged.

Insect tissue preparation protocol

| Fixation and Dehydration | |
|---|--------------------------------------|
| 2.5% Glutaraldehyde in 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C t = 24 h | |
| 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C 3x 1 h | |
| Ethanol series 25%, 50%, 75%, 95%, 100% T = 4 C 2x 20 min | |
| Acetone series 25%, 50%, 75%, 95%, 100% T = 4 C 2x 20 min | |
| Acetone 100% T ambient 20 min | |
| QDry Recipe: Insects | |
| Number of exchange cycles | 12 |
| Stirring speed | fast |
| Stirring time | 300 s |
| Equilibrium time | 120 s |
| Heating | slow |
| Venting | slow |
| QDry Holder | |
| Porous pot placed in porous potholder | |
| Recommended lining | lens tissue circle for easy transfer |
| Recommendations | |
| Coating | AuPd 10-12 nm Pt 10 nm |



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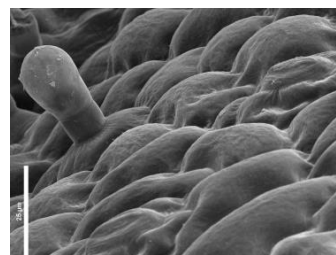
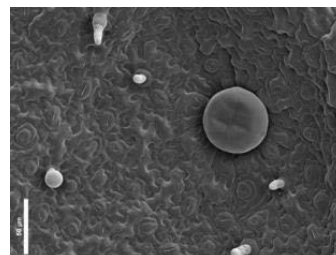
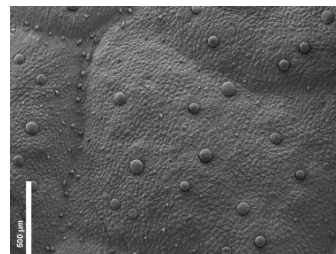
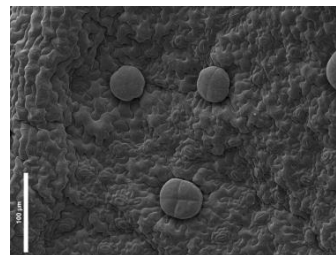
Mint leaf *Mentha piperita*

Applications - Plants

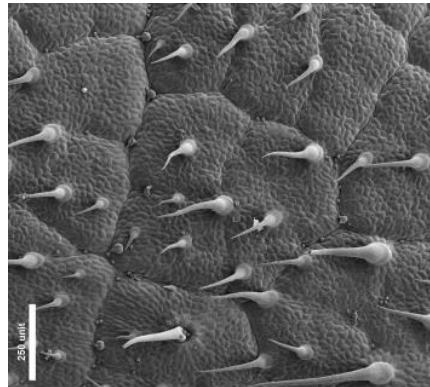
Rapid advances in agricultural and botanical studies require usage of reliable and repeatable preparation of plant tissue. Critical Point Drying (CPD) is a method to prepare samples for SEM examination. After tissue fixation and dehydration, samples can be stored in the intermediate liquid and dried before SEM imaging.

Plant tissue preparation protocol

| Fixation and Dehydration | |
|---|------------------------|
| 2.5% Glutaraldehyde in 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C t = 24 h | |
| 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C 3x 1 h | |
| Ethanol series 25%, 50%, 75%, 95%, 100% T = 4 C 2x 20 min | |
| QDry Recipe: Plant | |
| Number of exchange cycles | 12 |
| Stirring speed | slow |
| Stirring time | 240 s |
| Equilibrium time | 120 s |
| Heating | slow |
| Venting | slow |
| QDry Holder | |
| Bulk sample holder | |
| Recommendations | |
| Coating | AuPd 10-12 nm Pt 10 nm |



QDry Recipe guide



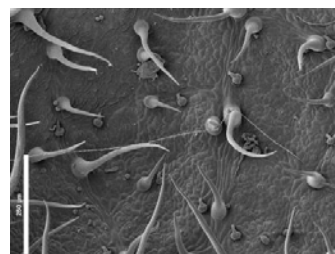
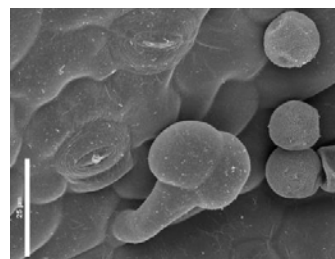
Stinging nettle leaf *Urtica dioica*

Applications - Plants

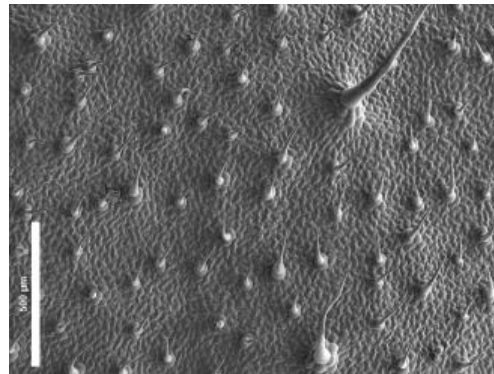
Rapid advances in agricultural and botanical studies require usage of reliable and repeatable preparation of plant tissue. Critical Point Drying (CPD) is a method to prepare samples for SEM examination. After tissue fixation and dehydration, samples can be stored in the intermediate liquid and dried before SEM imaging.

Plant tissue preparation protocol

| Fixation and Dehydration | |
|---|------------------------|
| 2.5% Glutaraldehyde in 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C t = 24 h | |
| 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C 3x 1 h | |
| Ethanol series 25%, 50%, 75%, 95%, 100% T = 4 C 2x 20 min | |
| Ethanol 100% T ambient 20 min | |
| QDry Recipe: Insects | |
| Number of exchange cycles | 12 |
| Stirring speed | slow |
| Stirring time | 180 s |
| Equilibrium time | 120 s |
| Heating | slow |
| Venting | slow |
| QDry Holder | |
| Bulk sample holder | |
| Recommendations | |
| Coating | AuPd 10-12 nm Pt 10 nm |



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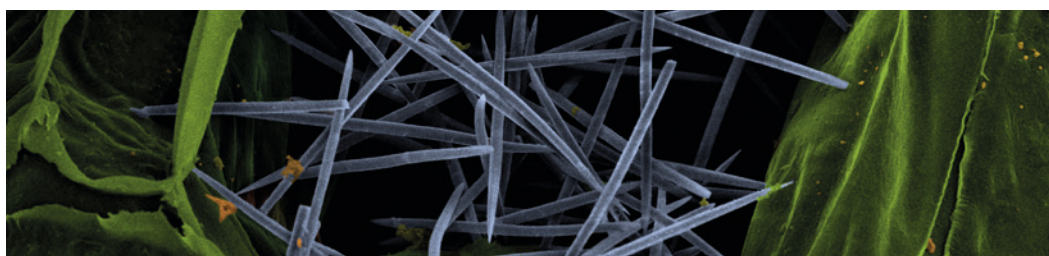
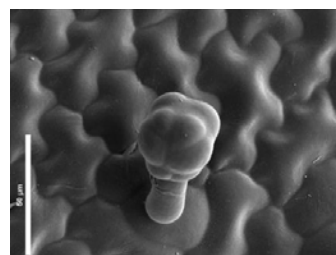
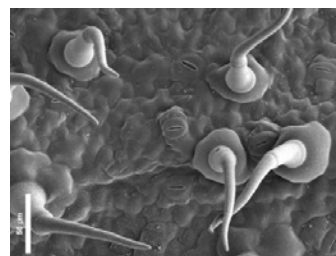
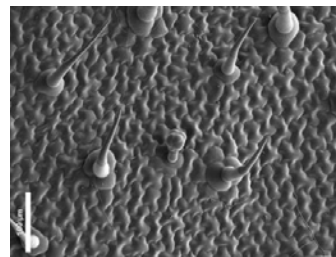
Tomato leaf
Solanum Lycopersicum

Applications - Plants

Rapid advances in agricultural and botanical studies require usage of reliable and repeatable preparation of plant tissue. Critical Point Drying (CPD) is a method to prepare samples for SEM examination. After tissue fixation and dehydration, samples can be stored in the intermediate liquid and dried before SEM imaging.

Plant tissue preparation protocol

| Fixation and Dehydration | |
|---|------------------------|
| 2.5% Glutaraldehyde in 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C t = 16 h | |
| 0.1 M Sodium Phosphate Buffer, pH 7.2 T = 4 C 3 x 1 h | |
| Ethanol series 25%, 50%, 75%, 95%, 100% T = 4 C 2x 20 min | |
| Ethanol 100% T ambient 20 min | |
| QDry Recipe: Plants | |
| Number of exchange cycles | 12 |
| Stirring speed | slow |
| Stirring time | 240 s |
| Equilibrium time | 120 s |
| Heating | slow |
| Venting | slow |
| QDry Holder | |
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| Recommendations | |
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Raphides in orchid air root