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## Transmission electron microscopy [↗](#)

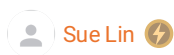
PLOS One

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Working

[dx.doi.org/10.17504/protocols.io.zz6f79e](https://doi.org/10.17504/protocols.io.zz6f79e)



### EXTERNAL LINK

<https://doi.org/10.1371/journal.pone.0218029>

### THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Lin S, Miao Y, Su S, Xu J, Jin L, Sun D, Peng R, Huang L, Cao J (2019) Comprehensive analysis of Ogura cytoplasmic male sterility-related genes in turnip (*Brassica rapa* ssp. *rapifera*) using RNA sequencing analysis and bioinformatics. PLoS ONE 14(6): e0218029. doi: [10.1371/journal.pone.0218029](https://doi.org/10.1371/journal.pone.0218029)

### MATERIALS TEXT

2.5% glutaraldehyde in phosphate buffer (pH7.0), phosphate buffer (pH7.0), 1% OsO<sub>4</sub> in phosphate buffer (pH7.0), ethanol (50%, 70%, 80%, 90%, 95% and 100%), absolute acetone, Spurr resin, uranyl acetate, alkalinelead citrate.

- 1 Double fixation: The specimen was first fixed with 2.5% glutaraldehyde in phosphate buffer (pH7.0) for more than 4 hours; washed three times in the phosphate buffer; then postfixed with 1% OsO<sub>4</sub> in phosphate buffer (pH7.0) for 1 hour and washed three times in the phosphate buffer.
- 2 Dehydration: The specimen was first dehydrated by a graded series of ethanol (50%, 70%, 80%, 90%, 95% and 100%) for about 15 to 20 minutes at each step, transferred to absolute acetone for 20 minutes.
- 3 Infiltration: The specimen was placed in 1:1 mixture of absolute acetone and the final Spurr resin mixture for 1 hour at room temperature, then transferred to 1:3 mixture of absolute acetone and the final resin mixture for 3 hours and to final Spurr resin mixture for overnight.
- 4 Embedding and ultrathin sectioning: Specimen was placed in capsules contained embedding medium and heated at 70°C for about 9 hours. Ultrathin sections (70 nm) were obtained and stained by uranyl acetate and alkalinelead citrate for 15 minutes respectively, and photographed by a Hitachi Model H-7650 transmission electron microscope (Tokyo, Japan).



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