

植物软化石蜡包埋实验报告

一、实验器材及试剂

1、实验器材

名称	厂家	型号
真空组织脱水机	Thermo Fisher	Excelsior AS
包埋机	武汉俊杰电子有限公司	JB-P5
冻台	武汉俊杰电子有限公司	JB-L5
电热鼓风干燥箱	天津市莱玻特瑞仪器设备有限公司	GFL-230
电子秤	Electronic	SF-400

2、主要实验试剂

试剂	厂家	货号
二甲苯	国药集团化学试剂有限公司	10023418
无水乙醇	国药集团化学试剂有限公司	100092683
无水乙二胺	天津市大茂化学试剂厂	107-15-3
植物软化液	合肥万物生物科技有限公司	G1115

二、植物软化流程

- 1、取材：依据取材部位和要求，将组织修薄为 2-3 mm 最好，然后将打印好的标签与组织一一对应放在脱水盒中。
- 2、软化：将脱水盒入植物软化液中，密封，放入 55°C 鼓风干燥箱中进行软化。软化液更换周期为 7 天，每周观察一次软化程度。
- 3、脱水浸蜡：将软化好的植物流水冲洗 30 min，放入 15% 的乙醇浸泡 2 h，转入真空组织脱水机脱水 30% 酒精 1 h，50% 酒精 1 h，75% 酒精 2 h，85% 酒精 1.5 h，90% 酒精 1.5 h，95% 酒精 1.5 h，100% 酒精 1 h，100% 酒精 1 h，二甲苯 8 min，二甲苯 20 min，二甲苯 20 min，石蜡 30 min，石蜡 1 h，石蜡 2 h。
- 4、包埋：先将融化的蜡放入包埋框，待蜡凝固之前将组织从脱水盒内取出按照包埋面的要求放入包埋框并贴上对应的标签。于 -20°C 冻台冷却，蜡凝固后取出并修整蜡块。
- 5、切片：将修整好的蜡块置于石蜡切片机切片，厚 5 μm。切片漂浮于摊片机 40°C 温水上将组织展平，载玻片捞起，60°C 烘箱内烤片。水烤干蜡烤化后取出常温保存备用。

Plant softening paraffin embedding experiment report

1. Experimental equipment and reagents

1.1 Experimental equipment

Name	Manufacturer	Model
Vacuum tissue dehydrator	Thermo Fisher	Excelsior AS
Embedding machine	Wuhan Junjie Electronics Co., Ltd	JB-P5
Frozen platform	Wuhan Junjie Electronics Co., Ltd	JB-L5
Electric blast drying oven	Tianjin Bo Ruite Instrument Co., Ltd	GFL-230
Electronic scale	Electronic	SF-400

1.2 Main experimental reagents

Reagent	Manufacturer	Article number
Xylene	Sinopharm Group Chemical Reagent Co. Ltd	10023418
Ethanol	Sinopharm Group Chemical Reagent Co. Ltd	100092683
Ethylenediamine anhydrous	Tianjin Damao Chemical Reagent Factory	107-15-3
Plant softener	Wuhan Seville Biotechnology Co., Ltd	G1115

2. Plant softening process

2.1 According to the location and requirements of the material, it is best to thin the tissue to 2~3mm, and then put the printed with the tissue in the dehydration box

2.2 Put the dehydration box into the plant softening solution, seal it, and put it into a 55 °C blast drying box to soften. The replacement period of softening solution is 7 days, and the softening degree is observed once a week.

2.3 Rinse the softened plants with running water for 30 minutes, soak them in 15% ethanol for 2 hours, then transfer to a vacuum tissue dehydrator to dehydrate 30% alcohol for 1 hour, 50% alcohol for 1 hour, 75% alcohol for 1 hour, 85% alcohol for 1.5 hours, 90% alcohol for 1.5 hours, 95% alcohol for 1.5 hours, 100% alcohol for 1 hour, 100% alcohol for 1 hour, xylene 8 min, xylene 20 min, xylene 20 min, paraffin 30 min, paraffin for 1 hour, paraffin for 2 hours.

2.4 Put the melted wax into the embedding frame, and before the wax solidifies, remove the tissue from the dewatering box and put it into the embedding frame according to the requirements of the embedding surface and affix the corresponding label. The wax is cooled



at-20 °C, and the wax blocks is taken after the wax is solidified

2.5 The wax blocks were placed on a paraffin slicer with a thickness of 5 μ m. The slice floats on the 40 °C warm water of the spreading machine,pick up the slides and bake in the oven at 60 °C. And then take out and store at room temperature and set aside.