叶片蜡质油红 O 染色实验报告

一、实验器材及试剂

1、实验器材

名称	厂家	型号
冰冻切片机	**THERMO**	**CRYOSTAR NX50**
正置光学显微镜	日本尼康	NIKON ECLIPSE E100
成像系统	日本尼康	NIKON DS-U3

2、主要实验试剂

试剂名称	厂家	货号
蔗糖	国药	
油红 O 饱和液	Servicebio	G1015
甘油明胶封片剂	Servicebio	G1402
异丙醇	国药	

二、实验步骤

1、制片：叶片经FAA固定后经蔗糖脱水，或新鲜的植物叶片，制备冰冻切片（纵切），常温晾干大约15min；

2、染色：切片入饱和油红O液染色8-10 min（避光，加盖）；

3、分化：用两缸60%的异丙醇分化，共约10 S；

4、水洗：蒸馏水浸洗，动作要轻柔，防止脂滴移位；

5、封片：滤纸擦干组织周边多余水分，甘油明胶封固；

6、拍照：避光，常温保存切片，显微镜观察及拍照，建议40X物镜及油镜观察。

三、结果判读：蜡质呈现橙红色。

Experimental Report on Waxy Oil Red Staining of Leaves

1. Experimental equipments and reagents

1.1 Experimental equipments

Name	Manufactor	Model
Frozen slicer	Thermo	CRYOSTAR NX50
Upright optical microscope	Nikon Japan	Nikon Eclipse E100
Imaging system	Nikon Japan	Nikon DS-U3

1.2 Main experimental reagents

Reagent name	Manufactor	Article number
sucrose	Sinopharm	
Oil red o saturated liquid	Servicebio	G1015
Glycerin gelatin sealed tablets	Servicebio	G1402
Isopropanol	Sinopharm	

2. Experimental steps

2.1 Preparation: The leaves are fixed by FAA and then dehydrated by sucrose, or fresh plant leaves, prepared frozen slices (longitudinal cut), and dried at room temperature for about 15min;
2. 2 Staining: Stain into oil-saturated O liquid for 8-10 minutes (protect from light and cover);
2.3 Differentiation: Differentiate with two cylinders of 60% isopropyl alcohol for about 10 s;
2.4 Washing: dip in distilled water, move gently to prevent the displacement of fat droplets;
2.5 Sealing: filter paper to dry excess water around the tissue and seal with glycerin gelatin;
2.6 Photography: avoid light, store slices at room temperature, observe and take pictures with a microscope, 40x objective lens and oil lens are recommended for observation.

3. The results were as follows

The wax was orange-red.