

Materials List for:

Biological Sample Preparation by High-pressure Freezing, Microwave-assisted Contrast Enhancement, and Minimal Resin Embedding for Volume Imaging

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Materials

Name	Company	Catalog Number	Comments
Instrumentation			
Leica HPM100	Leica		
Automatic Freeze Substitution	Leica		
Laboratory microwave with temperature control unit	Ted Pella		
EM ACE600 with gold target	Leica		
Crossbeam 540	Zeiss		
Halogen lamp 12 V/ 20 W	Osram		
Oven	VWR		
Freezing			
Bovine Serum Albumin	Sigma-Aldrich	A2153	
M9	Homemade		According to C. Elegans- A practical approach I.A.Hope
Hexadecene	Sigma-Aldrich	52276	
Polyvinylpyrrolidone	Sigma-Aldrich	P2307	
A type carrier	Wohlwend GmbH	#241	
B type carrier	Wohlwend GmbH	#242	
Slit carrier	Wohlwend GmbH	#446	
Plastic Pasteur pipettes	VWR	612-1684	
Forceps	FST	11200-10	
Freeze substitution			
Acetone	science services	10015	
Tannic acid	Sigma-Aldrich	403040	
Osmium tetroxide	EMS	19100	
Uranyl acetate	SPI-Chem	02624-AB	
Acetone	EMS	10015	
Thiocarbohydrazide	Sigma-Aldrich	223220	
Nunc CryoTubes	Sigma-Aldrich	V7884-450EA	
Watch glass dishes, 150 mm	VWR	216-2189H	
Eppendorf tubes	Eppendorf	0030 120.094	
Durcupan resin	Sigma-Aldrich	44610	
Mounting			
SEM stubs	Science Services	E75200	
Aclar	Science Services	50425-10	

Toothpicks			
filter paper	VWR	512-3618	
conductive silver resin	EMS	12670-EE	EPO-TEK EE 129-4
Software			
Image acquisition	Zeiss	SmartSEM	
Image acquisition	Zeiss	Atlas5 A3D	
Image processing	Open source	Fiji	http://fiji.sc/#download
Image visualization	Open source	IMOD	http://bio3d.colorado.edu/imod/