

Materials List for:

# Do's and Don'ts of Cryo-electron Microscopy: A Primer on Sample Preparation and High Quality Data Collection for Macromolecular 3D Reconstruction

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## Materials

Name	Company	Catalog Number	Comments
Ethane	Airgas	371745	99.99% purity very important, impurities can lead to high-contrast contaminants on the grid. CAUTION: flammable
Liquid nitrogen	Airgas	27135	99% purity. CAUTION: handling liquid nitrogen in a cold room poses a serious asphyxia hazard since nitrogen displaces oxygen without any warning signs.
Dumont no. 5 Antimagnetic tweezers	Ted Pella	5326	
Mica sheets, 1 x 4 cm	Ted Pella	54	
Graphite rods, presharpended size 1/8" dia x 2 1/4" long tip 0.039" dia neck type	Electron Microscopy Sciences	70220-45	
350 ml cryo-dewars	Pope	8600	
Cu 400 mesh holey grids Quantifoil	Quantifoil	Q10525	
Cu 400 mesh holey grids C-Flat	Protochips	CF-1.2/1.3-4C	
Glow discharge device	Electron Microscopy Sciences	Model E7620	
Turbo pumping station	Gatan	Model 655	
Carbon evaporator	Denton Vacuum	Model 502B	
Freeze plunger	FEI	Vitrobot Mark IV	
Transmission electron microscope 200 kV	FEI	Model Tecnai F20	
CCD Camera 4k x 4k	Gatan	UltraScan 4000 UHS	
Image Processing software CTFFIND3/CTFTILT			<a href="http://grigoriefflab.janelia.org/ctf">http://grigoriefflab.janelia.org/ctf</a>
Image Processing software EMAN			<a href="http://blake.bcm.edu/emanwiki/EMAN2">http://blake.bcm.edu/emanwiki/EMAN2</a>
Image Processing software Spider			<a href="http://spider.wadsworth.org/spider_doc/spider/docs/spider.html">http://spider.wadsworth.org/spider_doc/spider/docs/spider.html</a>
Image Processing software Freealign			<a href="http://grigoriefflab.janelia.org/frealign">http://grigoriefflab.janelia.org/frealign</a>
3D visualization software Chimera			<a href="http://www.cgl.ucsf.edu/chimera/">http://www.cgl.ucsf.edu/chimera/</a>
Native Keyhole Limpet Hemocyanin	Biosyn		