

Advancing High-Resolution Imaging of Virus Assemblies in Liquid and Ice

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jove.com/video/63856

Materials

Name	Company	Catalog Number	Comments
Acetone	Fisher Scientific	A11-1	1 Liter
Autoloader clipping tool	ThermoFisher Scientific	N/A	Also SubAngstrom supplier
Autoloader grid clips	ThermoFisher Scientific	N/A	top and bottom clips
Carbon-coated gold EM grids	Electron Microcopy Sciences	CF400-AU-50	400-mesh, 5-nm thickness
COVID-19 patient serum	RayBiotech	CoV-Pos-S-500	500 microliters of PCR+ serum
Methanol	Fisher Scientific	A412-1	1 Liter
Microwell-integrad microchips	Protochips, Inc.	EPB-42A1-10	10x10-mm window arrays
TEMWindows microchips	Simpore Inc.	SN100-A10Q33B	9 large windows, 10-nm thick
TEMWindows microchips	Simpore, Inc.	SN100-A05Q33A	9 small windows, 5-nm thick
Top microchips	Protochips, Inc.	EPT-50W	500 mm x 100 mm window
Whatman #1 filter paper	Whatman	1001 090	100 pieces, 90 mm
Equipment			
DirectView direct electron detector	Direct Electron		6-micron pixel spacing
Falcon 3 EC direct electron detector	ThermoFisher Scientific		14-micron pixel spacing
Gatan 655 Dry pump station	Gatan, Inc.		Pump holder tip to 10 ⁻⁶ range
Mark IV Vitrobot	ThermoFisher Scientific		state-of-the-art specimen preparation unit
PELCO easiGlow, glow discharge unit	Ted Pella, Inc.		Negative polarity mode
Poseidon Select specimen holder	Protochips, Inc.		FEI compatible;specimen holder
Talos F200C TEM	ThermoFisher Scientific		200 kV; Liquid-TEM

Titan Krios G3	ThermoFisher Scientific		300 kV; Cryo-TEM
Freely available software	Website link		Comments (optional)
cryoSPARC	https://cryosparc.com/		other image processing software
CTFFIND4	https://grigoriefflab.umassmed.edu/ctffind4		CTF finding program
MotionCorr2	https://emcore.ucsf.edu/ucsf-software		
RELION	https://www3.mrc-lmb.cam.ac.uk/relion/index.php?title=Main_Page		
SerialEM	https://bio3d.colorado.edu/SerialEM/		
UCSF Chimera	https://www.cgl.ucsf.edu/chimera/		molecular structure analysis software package