

Materials List for:

Visualization of DNA Compaction in Cyanobacteria by High-voltage Cryo-electron Tomography

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URL: <https://www.jove.com/video/57197>

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Materials

Name	Company	Catalog Number	Comments
Hoechst 33342 solution	Dojindo	346-07951	1mg/mL in H ₂ O
Agar Powder (for plant culture)	Wako	016-11875	
Boric acid	Wako	027-02192	99.5%
Manganese chloride tetrahydrate	Wako	139-00722	99%
Zinc sulfate heptahydrate	Wako	264-00405	99.5%
Sodium molybdate	Wako	196-02472	99%
Copper sulfate pentahydrate	Wako	039-04412	99.5%
Cobalt nitrate hexahydrate	Wako	031-03752	99.5%
Sodium nitrate	Wako	191-02542	99%
Magnesium sulfate heptahydrate	Wako	131-00405	99.5%
Calcium chloride dehydrate	Wako	031-00435	99.5%
Citric acid	Wako	036-05522	98%
EDTA-2Na	Dojindo	343-01861	99.5%
Sodium carbonate	Wako	197-01581	99.8%
Potassium phosphate dibasic	Wako	164-04295	99%
TES (Good's buffer)	Dojindo	344-02653	99%
Ferric ammonium citrate	Wako	092-00802	1st Grade
Sodium thiosulfate pentahydrate	Wako	197-03585	99%
BSA gold tracer 15nm	Aurion	215.133	
Quantifoil EM grid	Quantifoil MicroTools	R3.5/1 Copper grid	
Electron films	Kodak	SO-163	
Developer	Kodak	D19	
Fixer	Kodak	Rapid fixer	Solution
Filter paper	Whatman	Grade 1	
Growth chamber	NKsystem	LH-100SP	
Fluorescent microscope	Nikon	ECLIPSE 50i	
High voltage TEM	Hiltachi	H1250M	
Cryo-specimen holder for HVEM	Gatan		
plunge-freezing device	Leica	EM CPC	
Plasma Ion bombarder	Vacuum device	PIB-10	
Liquid nitrogen storage	Taylor-Wharton	25LDB	
Developing tank	Dosaka EM	TB-3-75	
flatbed scanner	Nikon	Coolscan 9000ED	

Segmentation software	FEI	Amira	https://www.fei.com/software/amira
Tomographic Reconstruction software	eTOMO		http://bio3d.colorado.edu/imod