

Materials List for

Studying the Effects of Temperature on the Nucleation and Growth of Nanoparticles by Liquid-Cell Transmission Electron Microscopy

Abdelali Khelifa¹, Jaysen Nelayah¹, Guillaume Wang¹, Christian Ricolleau¹, Damien Alloyeau¹

¹Laboratoire Matériaux et Phénomènes Quantiques, Université de Paris – CNRS

Corresponding Author

Damien Alloyeau

damien.alloyeau@univ-paris-diderot.fr

Citation

Khelifa, A., Nelayah, J., Wang, G., Ricolleau, C., Alloyeau, D. Studying the Effects of Temperature on the Nucleation and Growth of Nanoparticles by Liquid-Cell Transmission Electron Microscopy. *J. Vis. Exp.* (), e62225, doi:10.3791/62225 (2021).

Date Published

February 17, 2021

DOI

10.3791/62225

URL

jove.com/video/62225

Materials

Name	Company	Catalog Number	Comments
2100 Plus electron microscope	Jeol		
Acetone	Merck		
Air pistol			
ARM 200F electron microscope	Jeol		
Binoculars or optical microscope			
Carbon tipped tweezers			
Computer with heating software	Software by Protochips		
Distilled water			
Dummy e-chips	Protochips		
Gasket/O-rings	Protochips		
Gold aqueous solution	Merck		1 mM of HAuCl ₄ - Prepared beforehand
Large liquid heating E-chip	Protochips		
Methanol	Merck		
One View camera	Gatan		
Petri dish			Number : 2
Plasma cleaner	Gatan		
Poseidon Select	Protochips		Liquid cell holder
Power supply Keithley 2450			
Protective gloves			
Red PEEK tubing			Number : 3
Screwdriver with torque			
Small liquid E-chip	Protochips		150 nm spacers
STEM HAADF detector	Jeol		
STEMx software	Gatan		
Syringe			Number : 2

Syringe pump	Harvard apparatus		Number : 2
Vacuum pump	Gatan		