

Materials List for:

Resonance Raman Spectroscopy of Extreme Nanowires and Other 1D Systems

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Materials

Name	Company	Catalog Number	Comments
Carbon Nanotubes	Nanointegris	NI96	
Carbon Nanotubes	Private		Synthesis described in <i>Eurasian Chem.-Technol. J.</i> , 5 , 7-18 (2005).
Mercury Telluride	VMR		99.999% metals basis
Silica Quartz Tubing	H. Baumbach & Co.		Various diameters and lengths used; typically 1 cm OD, 0.8 cm ID and 8 cm long.
Tube furnace	Carbolite	MTF-12/38/250	
JEOL ARM 200F	JEOL		200 kV High Resolution TEM Operated at 80 kV and equipped with CEOS hardware spherical aberration (Cs) imaging corrector. Cs corrected to 0.001 mm.
SC1000 ORIUS camera	Gatan		Size of CCD 4,008 x 2,672
Digital Micrograph Suite 2.31	Gatan		64 bit version
XMax X-ray Microanalysis	Oxford Instruments		This detector uses the silicon drift detection (SDD) principle. 1 nm diameter electron probe.
Crystalmaker Ver 8.7	Crystalmaker		Used for assembling crystal fragments for image simulations
Nanotube Modeler	JCrystalSoft ©2015-2015	Used for generating Nanotube models	
SimulaTEM	Private		<i>Ultramicroscopy</i> , 110 , 95-104 (2010).
Verdi V8 Pump	Coherent		
Mira 900 Ti:Sapphire	Coherent		
Volume Bragg Grating	Optigrate		Specification between 680-720 nm
Photonetc TLS 850 LLTF	Photonetc		Tunable between 700-1,000 nm
LMPLAN IR 50X Microscope Objective	Olympus		
Cryostat	Oxford Instruments		
Triple Raman Spectrometers	Princeton Instruments		triple 600 nm using gratings 900, 900, 1,800 lines/mm
CCD	Princeton Instruments		deep depleted, UV enhanced liquid N ₂ Cooled Silicon CCD