Supporting information

Spray Coating of Two-dimensional Suspended Film of Vanadium Oxide-Coated Carbon Nanotubes for Fabrication of a Large Volume Infrared Bolometer

Sukanta Nandi and Abha Misra*

Department of Instrumentation and Applied Physics, Indian Institute of Science, Bangalore, Karnataka 560012, India.

*Corresponding author: Prof. Abha Misra, Email: abha.misra1@gmail.com

Table S1

Measurement conditions	Unsuspended	Suspended
Temperature (K)	200.28	200.17
Pressure (mbar)	~10^{-3}	~10^{-3}
IR modulation frequency (ms^{-1})	50	50
Wavelength (nm)	1064	1064
Output power from laser falling on VCNT film (mW)	12.5	18.25
Current bias (µA)	100	68.75
Laser spot size (mm^2)	(22/7) *1.5 mm*1.05 mm = 4.95	(22/7) *1.5 mm*1.05 mm = 4.95
Transferred film area (mm^2)	~ 2.5 * 2.5	~ 2.5 * 2.5
Active area	~ 3.2 µm * 2.5 mm	~ 2.2 µm * 2.5 mm
Current density (A/cm^2)	= 100 µA/0.00008 cm^2 = 1.25	= 68.75 µA/0.000055 cm^2 = 1.25
Incident power (mW)	= (12.5/4.95) *(3.2 µm * 2.5 mm) = 0.0202	= (18.25/4.95) *(2.2 µm * 2.5 mm) = 0.0202