

## Product Datasheet

### Graphenea Monolayer Graphene film on 150nm Si<sub>3</sub>N<sub>4</sub>/Si

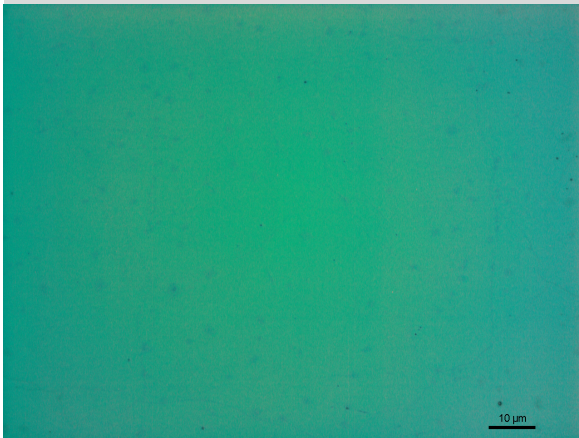
#### Graphene Film

Growth Method	CVD synthesis
Transfer Method	WET transfer method
Quality Control	Optical Microscopy & Raman Spectroscopy
Appearance (Color)	Transparent
Transparency	>97%
Appearance (Form)	Film
Coverage	>97%
Number of graphene layers	1
Thickness (theoretical)	0.345 nm
Hall Effect Mobility on Si <sub>3</sub> N <sub>4</sub>	1.432±428 cm <sup>2</sup> /V·s (1cm x 1cm)
Sheet Resistance on Si <sub>3</sub> N <sub>4</sub> (Van der Pauw)	576±172 Ohms/sq. (1cm x 1cm)
Grain size	Up to 10 μm

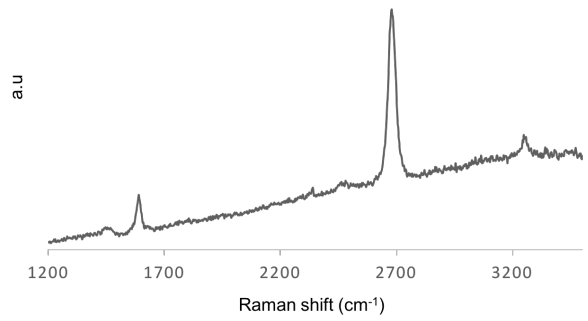
#### Si<sub>3</sub>N<sub>4</sub>/Si Substrate

Type/Dopant	P/Bor
Orientation	<100>
Growth Method	CZ
Resistivity	10-20 ohm cm
Thickness	735 +/- 25 μm
Front Surface	polished
Back Surface	etched
Coating	150nm of Si <sub>3</sub> N <sub>4</sub> deposited by LPCVD

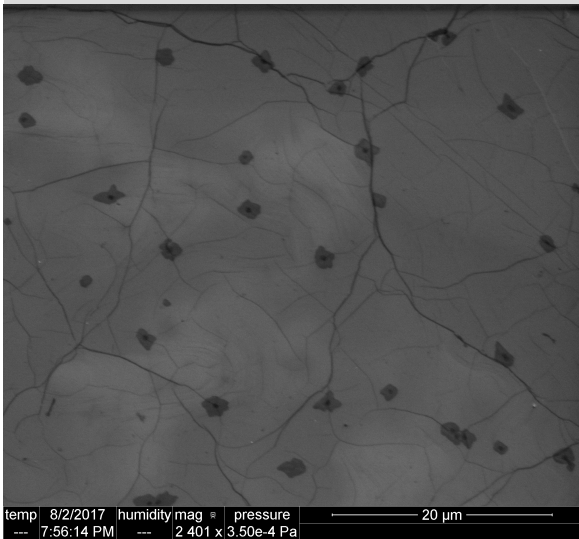
Optical Microscopy (460 nm Filter )



Raman Spectrum (532nm laser)



SEM image



HRTEM image

