



## Product Datasheet

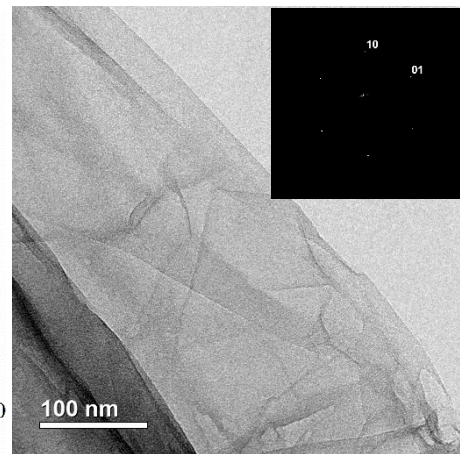
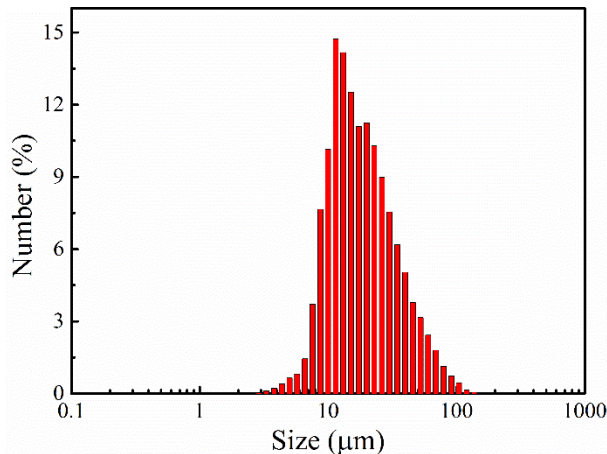
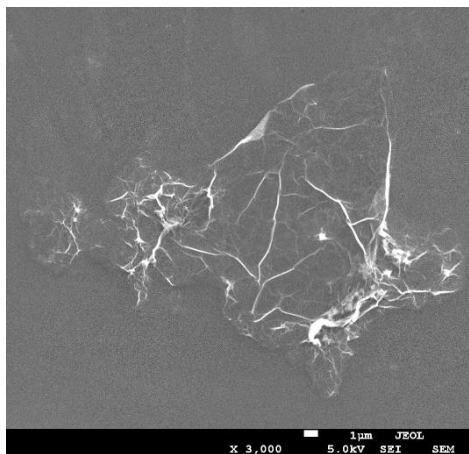
### Aminated graphene (Am-Graphene, powder)

#### Properties

<b>Color:</b>	Black
<b>Dispersibility in solvents:</b>	Dispersible in Alcohols, Chloroform, Tetrahydrofuran via 1-2 minutes of sonication
<b>Dispersion stability:</b>	Medium (up to few hours). It is recommended to 1-2 min sonication before using of dispersion
<b>Platelets Size: (Laser Diffraction &amp; SEM images)</b>	d90: 36.7-41.3 $\mu\text{m}$ d50: 12.4-14.6 $\mu\text{m}$ d10: 9.1-9.8 $\mu\text{m}$
<b>Number of layers, single platelet: (TEM and XRD Data)</b>	>80% Monolayer platelets
<b>Crystalline quality, single platelet: (TEM)</b>	High (absence of nanoscale holes and rips)
<b>Conductivity:</b>	$\approx 450 \text{ S/m}$
<b>Storage conditions:</b> at a temperature of 3-5 °C, without access of the light, with a tightly closed lid	

#### Chemical Composition

<b>Elemental composition: (Elemental analysis &amp; XPS)</b>	C: _____ 84-88.9 at.%
	O: _____ 6.3-8.7 at.%
	N: _____ 4.8-6.3 at.%
	S: _____ <0.5 at.%
	Other Impurities: _____ <0.5 at.%
<b>C/O ratio: (XPS)</b>	13.4-22.1
<b>Functional groups composition: (XPS &amp; FTIR)</b>	C(sp <sup>2</sup> ): _____ 87.2-90.2 at.%
	C-OH&C-O-C: _____ 2.3-4.1 at.%
	C=O: _____ 1.4-1.9 at.%
	COOH: _____ 1.2-1.5 at.%
	C-NH <sub>2</sub> : _____ 3.9-5.3 at.%

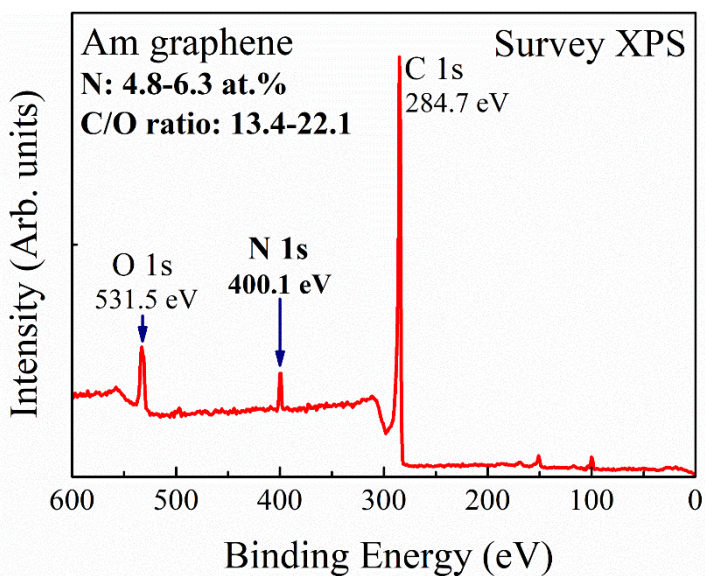


SEM Image

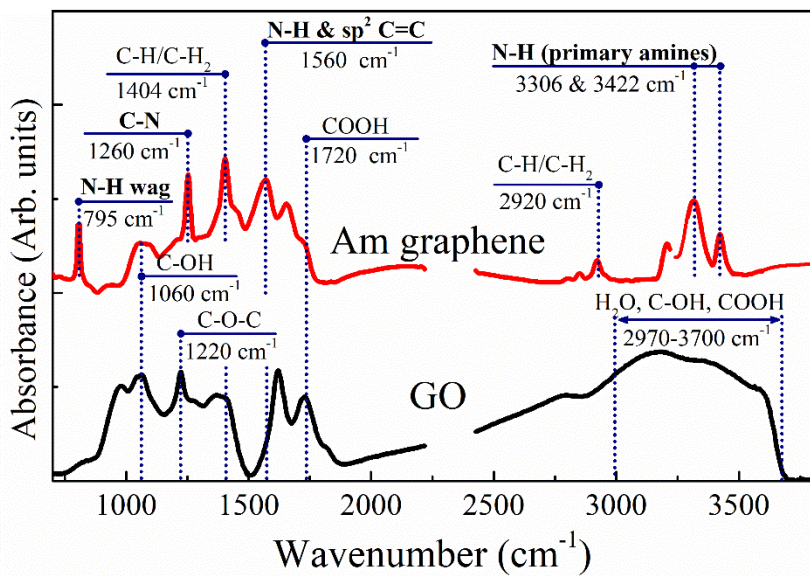
Size Distribution\*

TEM image and SAED

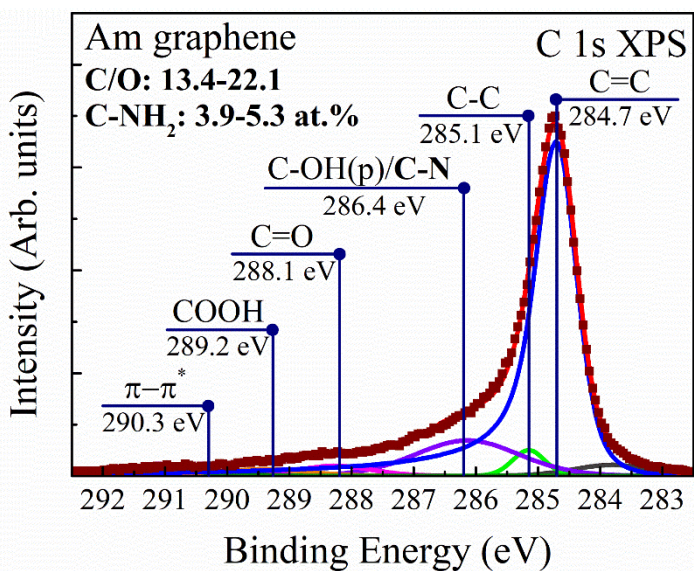
\*according to both Laser Diffraction and SEM analysis



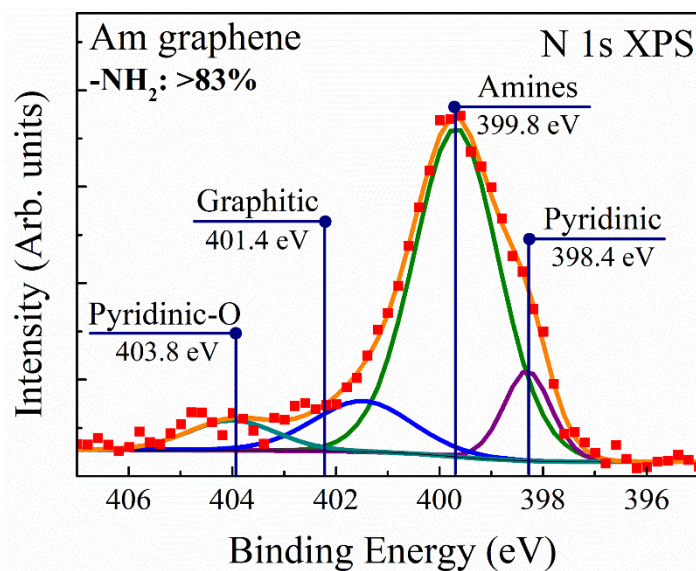
Survey XPS



FTIR



C 1s XPS



N 1s XPS