



## Product Datasheet

### Graphene

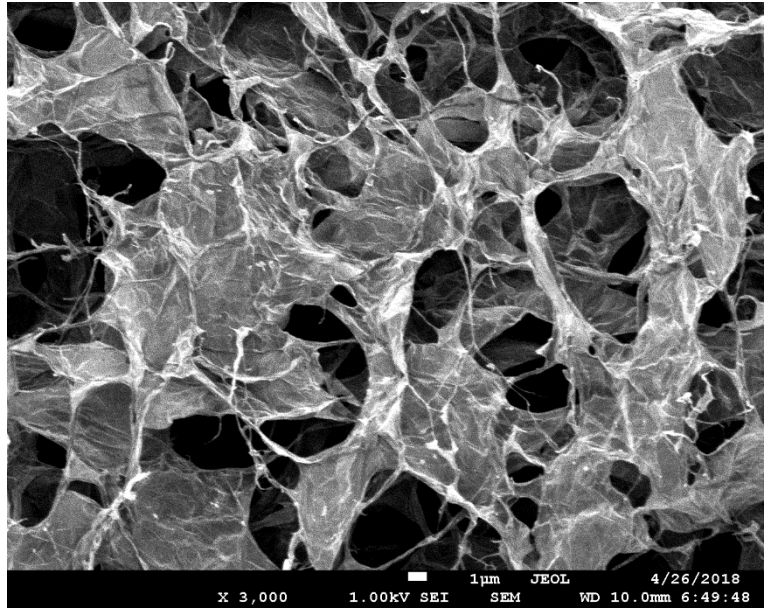
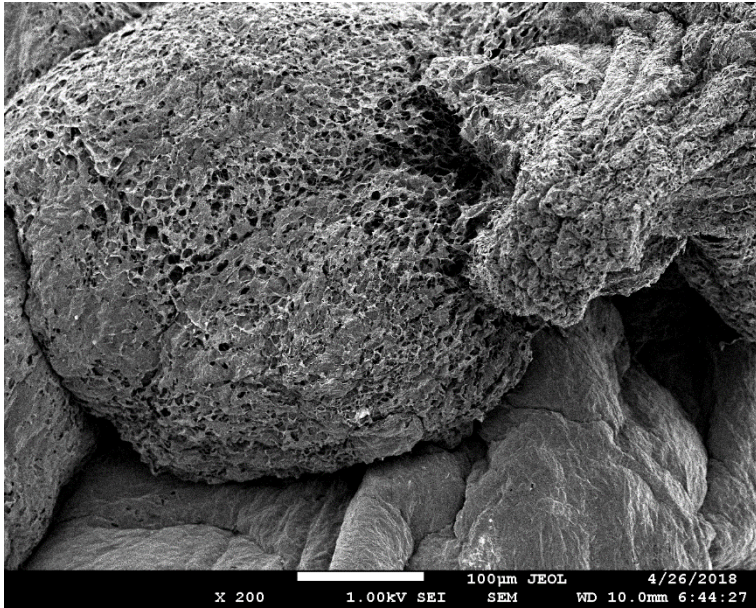
(reduced graphene oxide, rGO, aerogel)

#### Properties

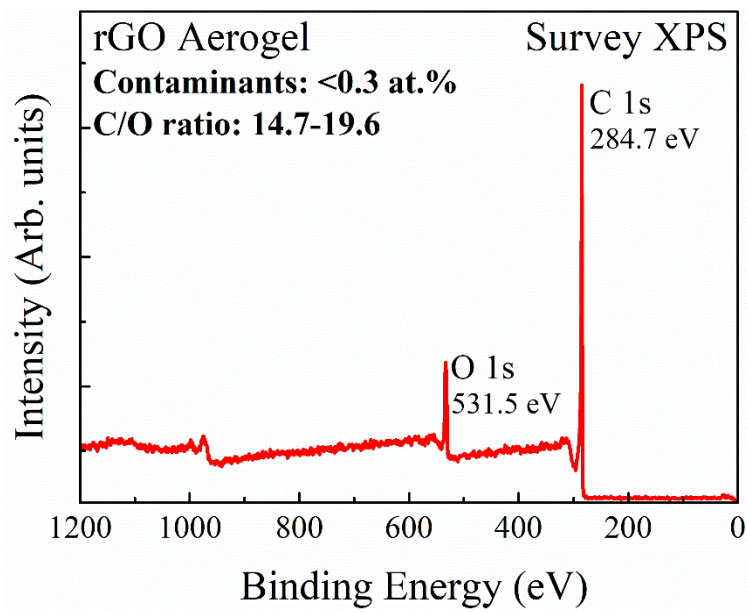
<b>Color:</b>	Black
<b>Density:</b>	5-7 mg/cm <sup>3</sup>
<b>Surface area (BET):</b>	750-1000 m <sup>2</sup> /g
<b>Approximate dimensions:</b>	d=3-5 mm (balls) d=12mm h=20 mm (columns)
<b>Conductivity:</b>	≈ 300 S/m
<b>Dispersibility in solvents:</b>	Dispersible in Alcohols, Tetrachloromethane, Tetrahydrofuran, Toluene via 1-2 minutes of sonication
<b>Dispersion stability:</b>	Stability strongly depends on solvent. It is recommended to 1-2 min sonication before using of dispersion

#### Chemical Composition

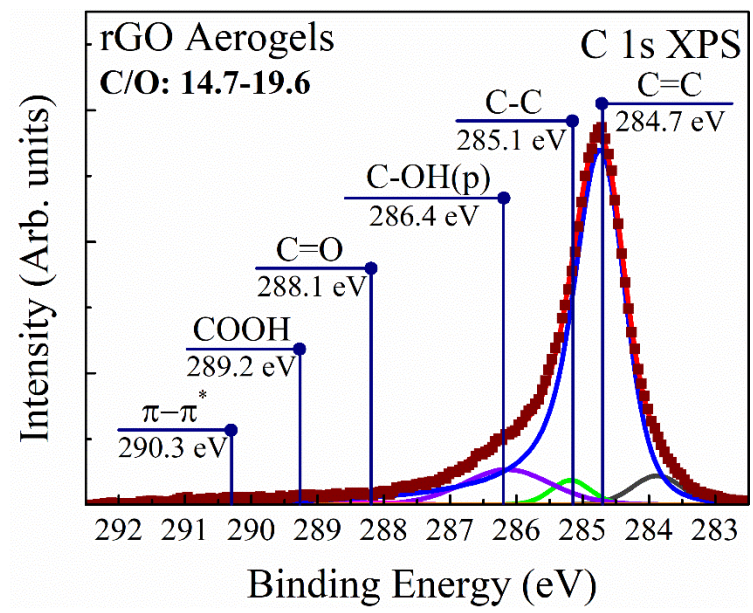
<b>Elemental composition:</b> (Elemental analysis & XPS)	C:	92.3-93.7 at.%
	O:	5.3-6.7 at.%
	S, N:	<0.5 at.%
	Other Impurities:	<0.5 at.%
<b>C/O ratio:</b> (XPS)	14.7-19.6	
<b>Functional groups composition:</b> (XPS & FTIR)	C(sp <sup>2</sup> ):	93.2-94.9 at.%
	C-OH&C-O-C:	3.3-4.7 at.%
	C=O:	0.7-0.9 at.%
	COOH:	1.1-1.2 at.%



### SEM Images of Graphene aerogel



Survey XPS



C 1s XPS