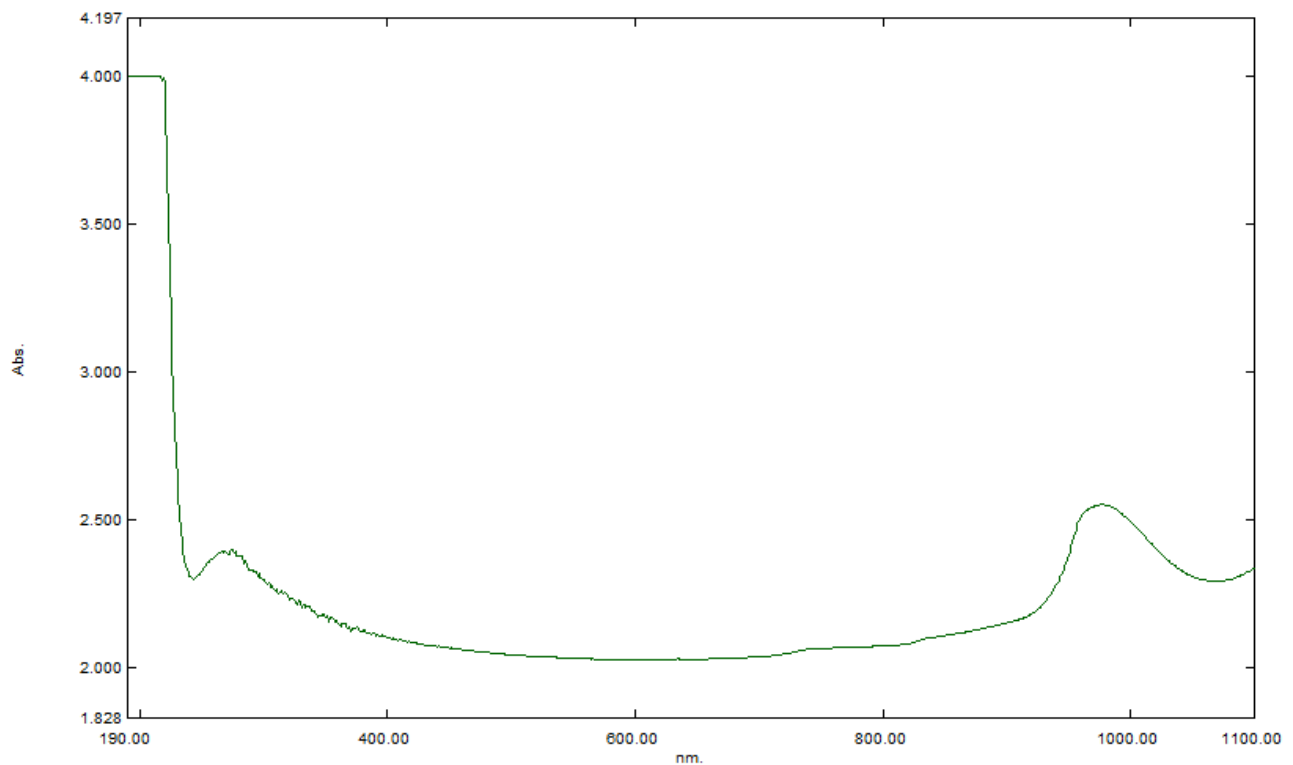




Certificate of Analysis

Colloidal Stability of water-based Graphene Nanoplatelets-COOH (GNP-COOH) suspension

Additive	GNP-COOH
Basefluid	Water
Sedimentation of nanoparticles after 30 days of preparation	<2%



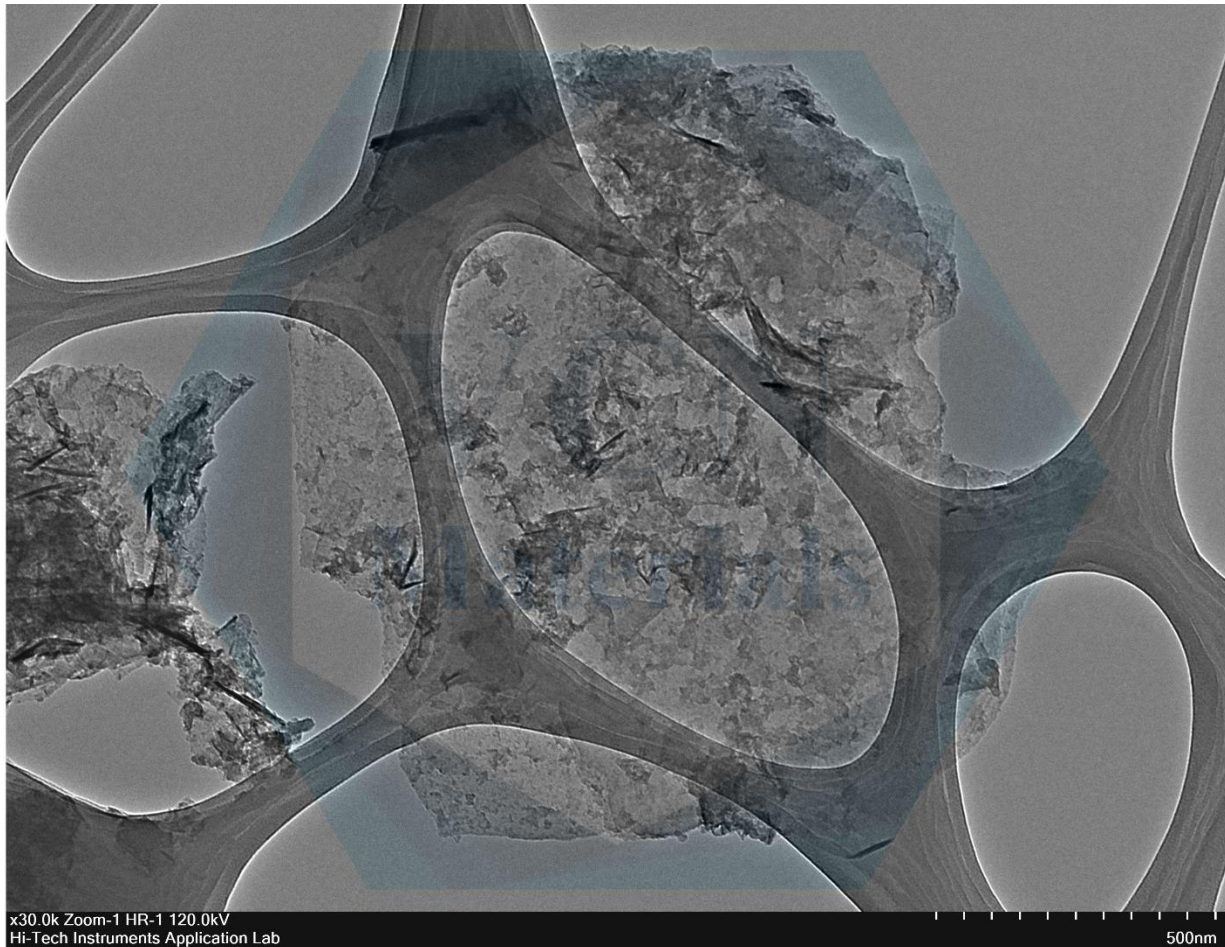
UV-Vis spectrum of water-based GNP-COOH suspension



Certificate of Analysis

Characterization of additives (GNP-COOH)

i. Morphological analysis

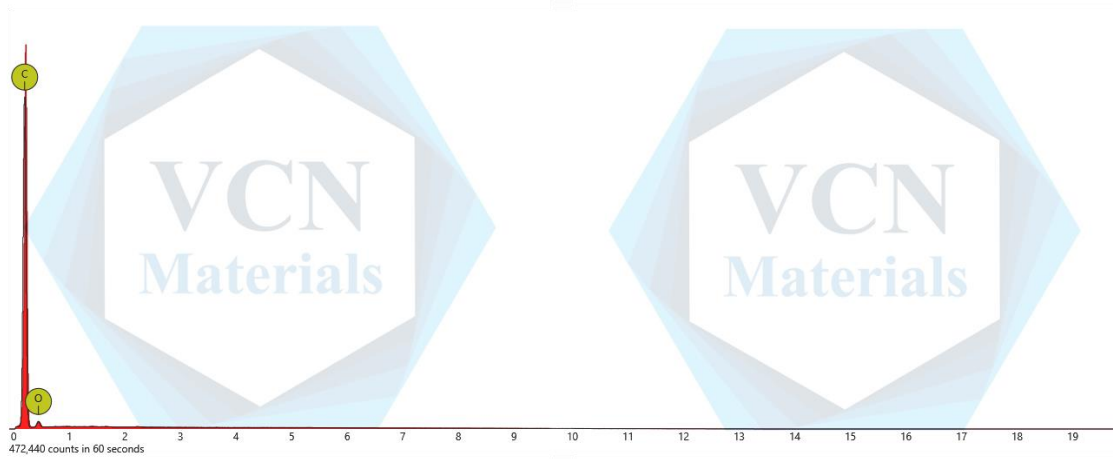


High resolution transmission electron microscopy image of Graphene Nanoplatelets-COOH (GNP-COOH)



Certificate of Analysis

ii. Elemental Analysis



EDX image of Graphene Nanoplatelets-COOH (GNP-COOH)

Element Number	Element Symbol	Element Name	Atomic Conc.	Weight Conc.
6	C	Carbon	93.87	92
8	O	Oxygen	6.13	8

Weight percentage



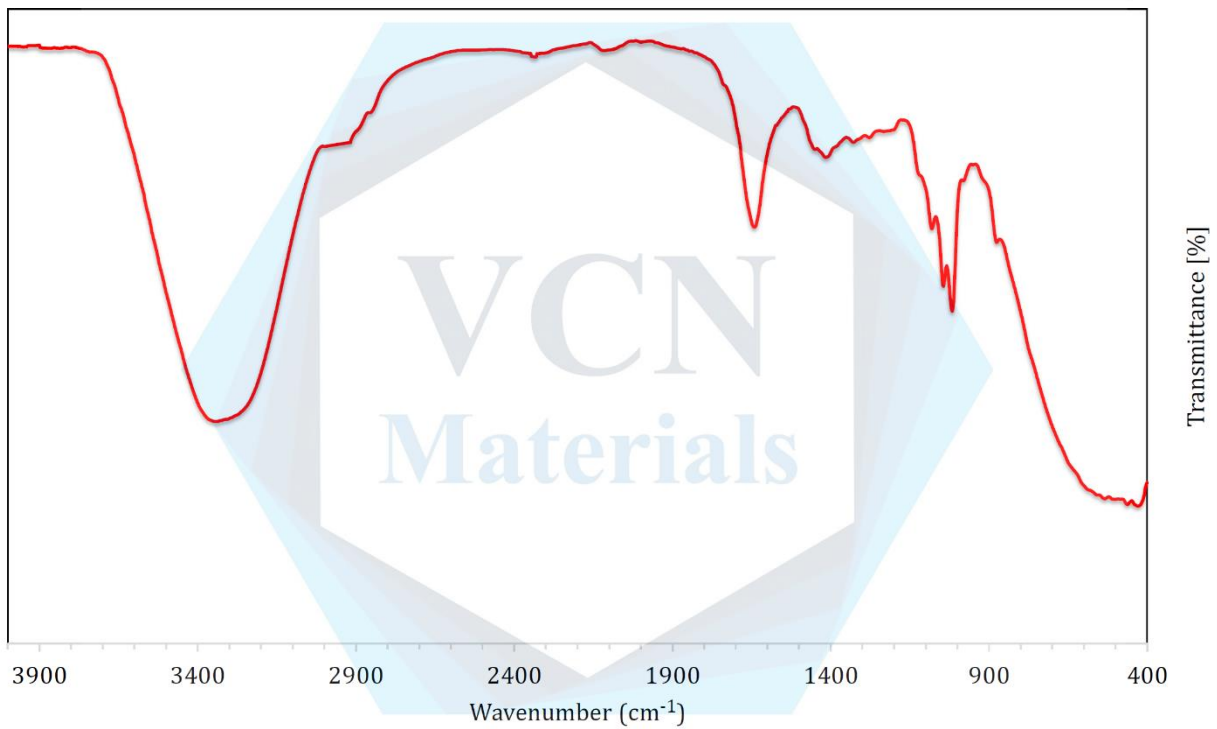
Atomic percentage





Certificate of Analysis

iii. Functional Analysis

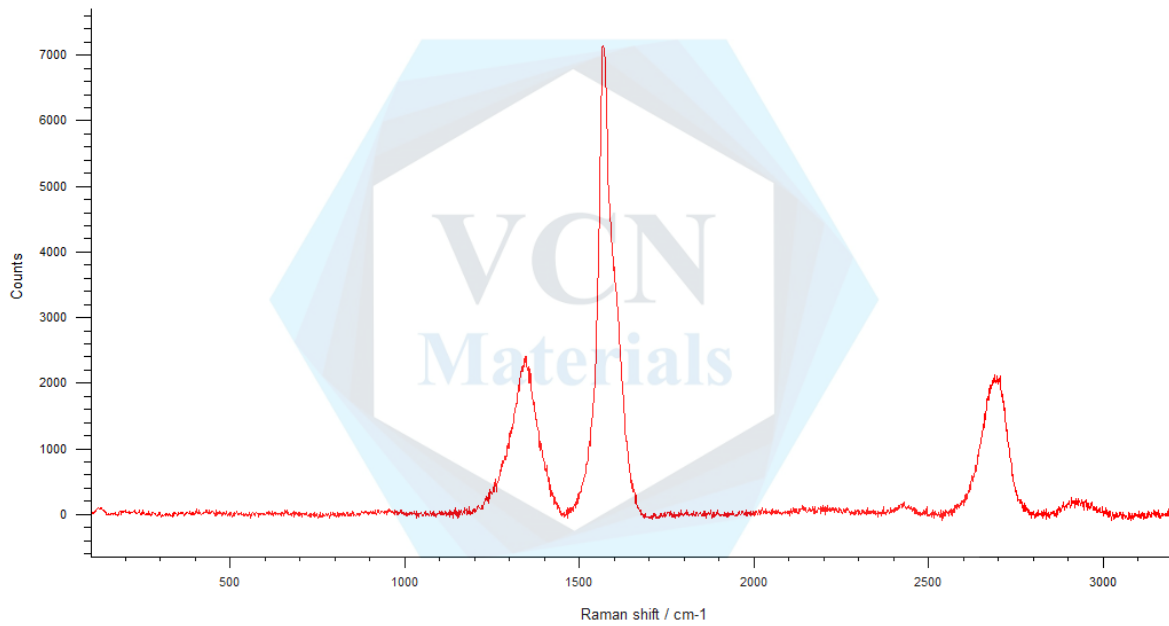


FTIR spectra of Graphene Nanoplatelets-COOH (GNP-COOH)



Certificate of Analysis

iv. Structural Analysis



Raman spectra of Graphene Nanoplatelets-COOH (GNP-COOH)