

Specification Sheet

Stock No: GG15A-00122



Graphene Monolayers to Few Layers Nanoparticles in Pure Water Dispersion

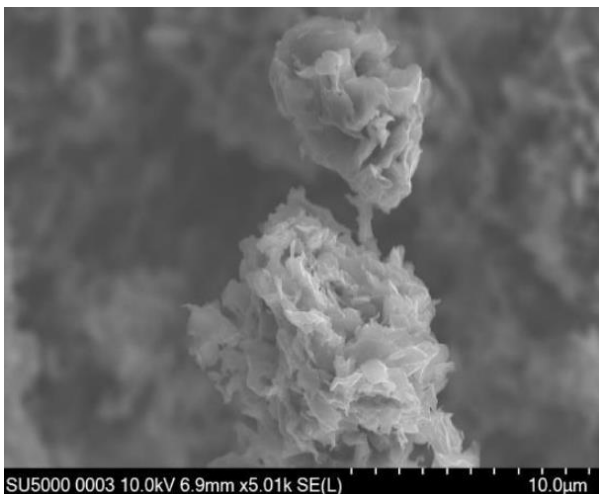
GENERAL CHARACTERISTICS:

Mono and Few layer Graphene in pure water

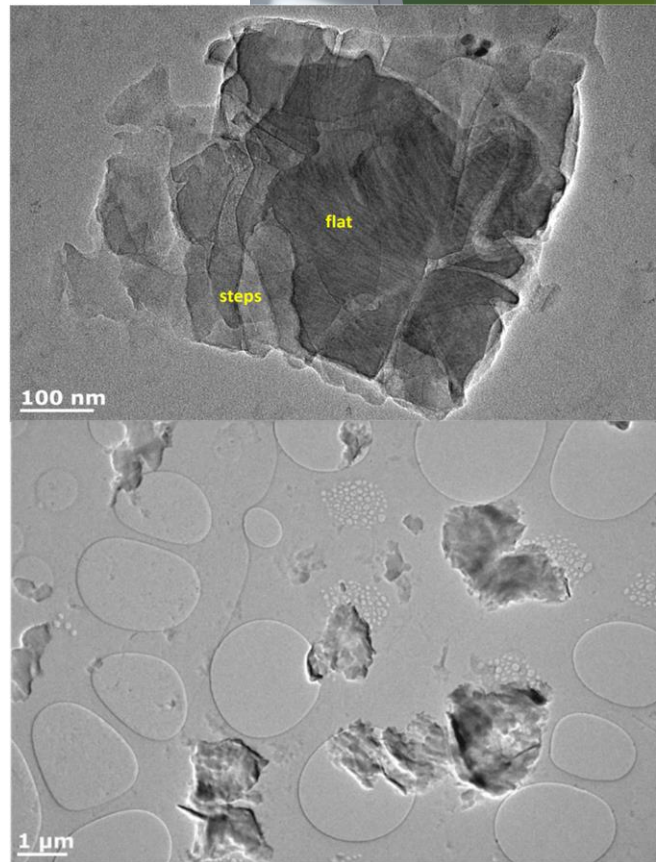
- Chemical-free, single stage process
- Shelf-life > 4 months, stable susp.
- Low carbon production technique
- Low oxygen – tailorable
- No surfactants needed
- Available in 25L to 1000L
- 0.05 – 2.5wt% concentration

Layers	Single to Few Layer
Morphology	Flake
Color	Grey/black
Lateral Size	0.05-2 μ m
pH	3.5-4.5

SEM ANALYSIS*:



- Large surface area available for functionalisation
- Highly scalable exfoliation process



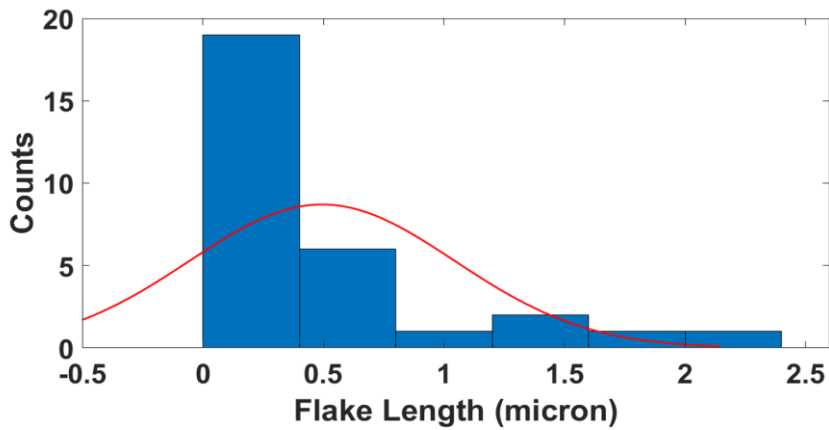
* Performed by outside test facility
Revision Date: 18.10.2022

PARTICLE SIZE AND OXYGEN CONTENT ARE
ADJUSTABLE TO MEET USE-CASE



PARTICLE SIZE DISTRIBUTION:

Typical Particle Profile: >83% sub 1 μ m*

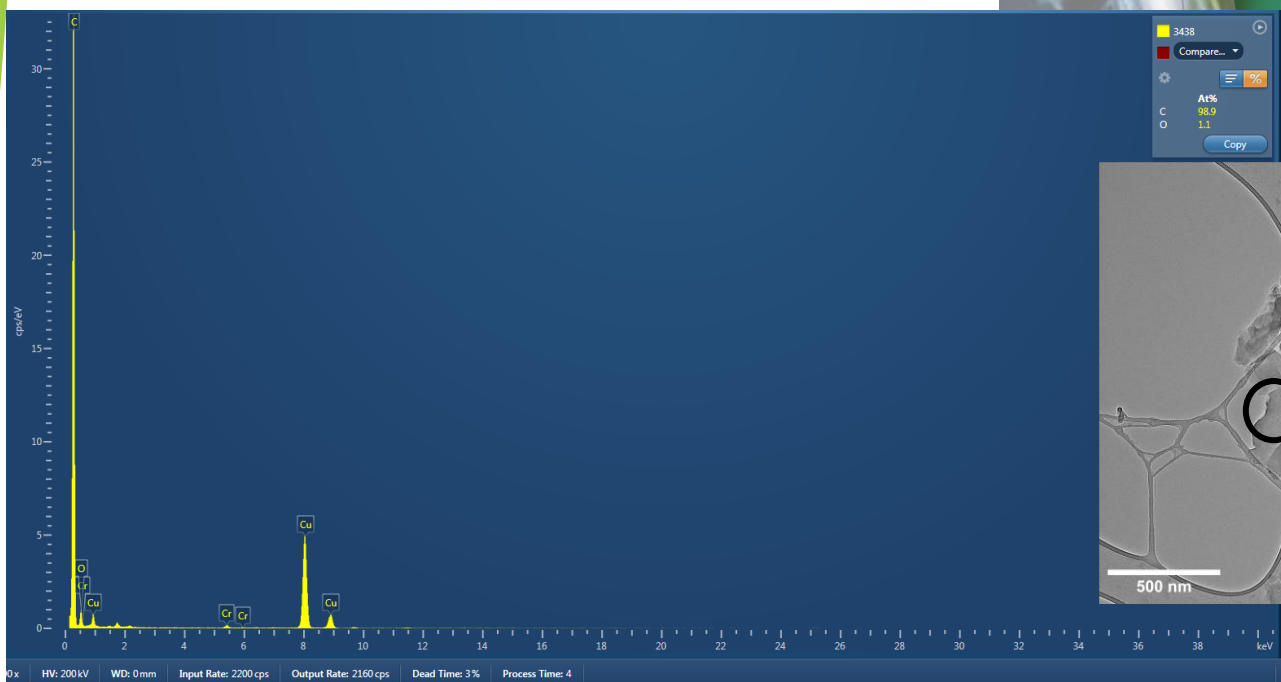


Average flake size 100 – 200nm

TEM/EDX

Typical oxygen concentration < 8% [At% 4.0 +/-5.0]*

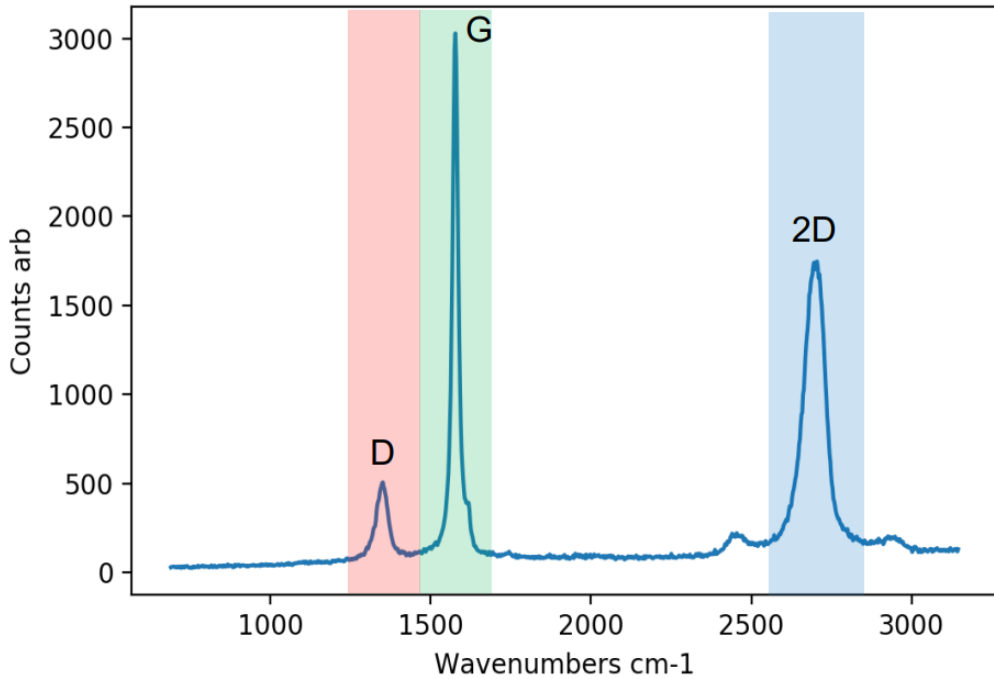
- Elements present: C, O (1.1 %).
- C:O = 89.9:1.0



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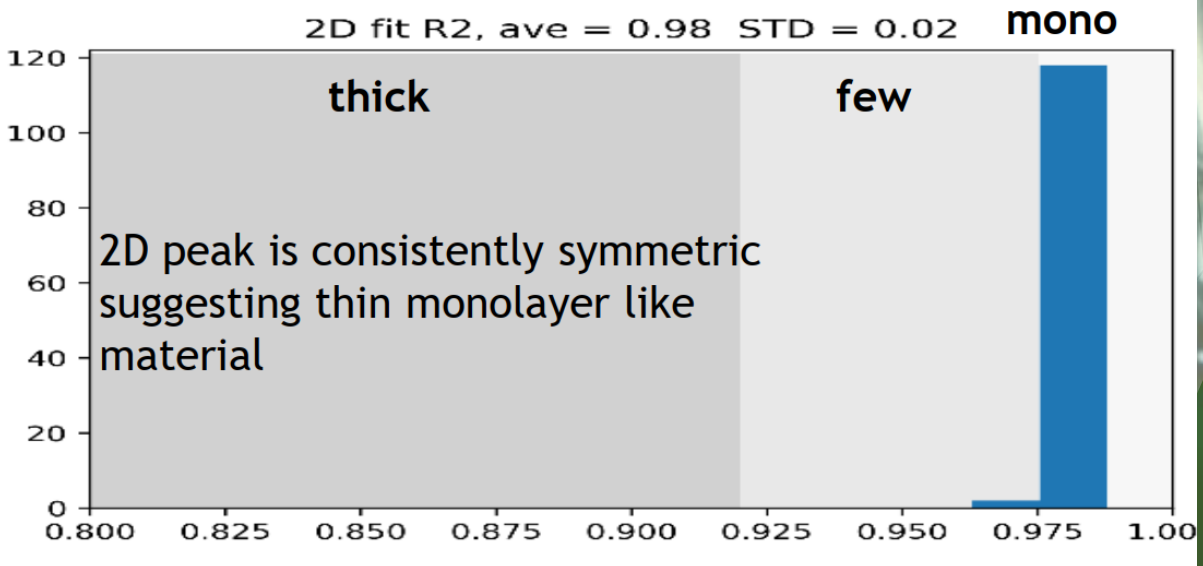
RAMAN ANALYSIS:

Exceptionally low defect ratio [D/G peak] ratio of $\sim 0.16^*$



Critical Observations: Crystalline from G band, thinner/non-bulk material from symmetrical 2D band

Mean ratio of 2.15 for 2D:G ratio*



Contact for more information and bespoke graphene oxide dispersions : jonny@greengraphene.ltd 00 44 (0) 7463 0777282

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