

## C3 Electrode

Our C3 Electrode is a disposable sensing platform developed using a uniform and pure carbon film deposited directly onto alumina substrates via chemical vapor deposition (CVD). The device consists of a pristine carbon-based working and counter electrode, and an Ag/AgCl reference electrode.



Key Specifications	
Conductivity (S/m)	$2 \times 10^5$
Surface Area (m <sup>2</sup> /g)	$0.46 \pm 0.02$
Sheet Resistance (ohms/sq)	$5 \pm 0.5$
Composition (EDS)	> 99% C
Substrate Material	Alumina

SKU List		
SKU	Size (mm)	Quantity
C3EQ20PS	10 x 30 x 0.5	Pack of 20
C3EQ20PS	10 x 30 x 0.5	Pack of 60
C3EQ20PS	10 x 30 x 0.5	Pack of 120
C3EQ20PS	10 x 30 x 0.5	Pack of 200
C3EQ20PS	10 x 30 x 0.5	Pack of 260

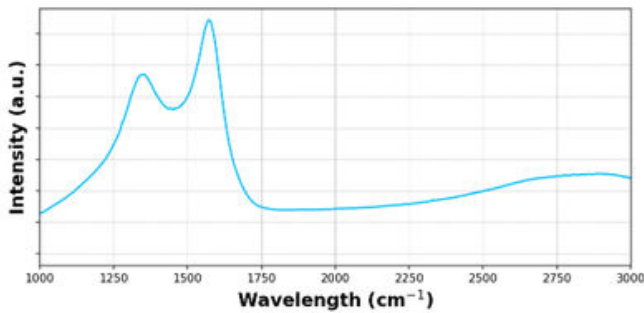
### KEY ADVANTAGES

- Binder Free
- High Chemical Stability
- Tunable Electrical Resistance
- Biocompatibility
- Scratch Resistance

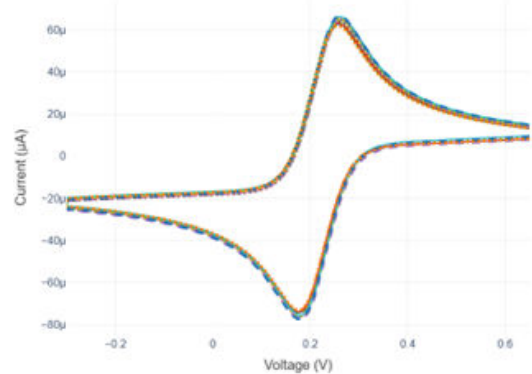
## Quality Control

We are dedicated to delivering the highest quality graphene and related carbon materials. Our quality control process ensures consistency and excellence in every batch we produce. We employ advanced techniques, including Raman spectroscopy for precise molecular characterization, SEM imaging to analyze structural integrity at the nanoscale, and Optical Imaging to verify uniformity and quality. These technologies allow us to maintain unparalleled standards, ensuring our graphene meets the demanding needs of our customers and drives innovation across industries.

### Raman Spectrum

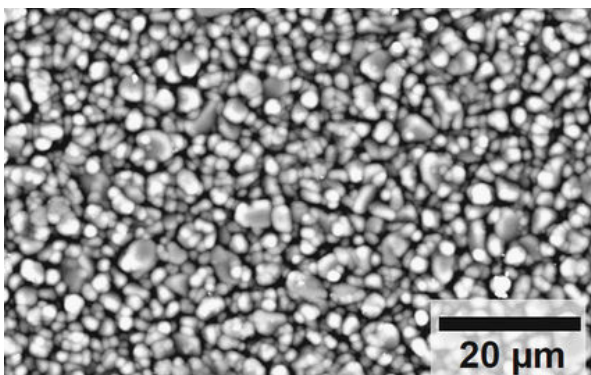


### CV Curve



\*CV curves for 5 mM K<sub>3</sub>[Fe(NC)<sub>6</sub>] / 1M KCl at a scan rate of 50 mV/s using C3 electrodes.

### SEM Image



### Parameters Extracted from CV Curves

	Mean	RSD
$I_{pa}$ ( $\mu A$ )	$69.9 \pm 1.9$	2.7%
$I_{pc}$ ( $\mu A$ )	$-85.6 \pm 2.7$	3.1%
$\Delta E_p$ (mV)	$85 \pm 4.0$	4.7%
$E_0$ (mV)	$200 \pm 1.0$	0.5%

\*(n = 30)

Synthesis



Raman Spectroscopy  
SEM & Optical Imaging  
Electrical Testing



Pass/Fail