

HIGH ORDERED PYROLYTIC GRAPHITE ZYB QUALITY

Product No. 626-10

DESCRIPTION:

Graphite consists of identical stacked planes (*Figure 1*) of covalently bonded graphene. The layers are weakly held together and can be easily exfoliated. High Ordered Pyrolytic Graphite (HOPG) is a crystallographically textured graphite with the majority of the graphene sheets stacked parallel to the surface of the material. The surface has outstanding regularity and smoothness at the nanoscale (*Figure 2*). HOPG is ideal as a test substrate for STM and AFM applications. An atomically fresh surface can be easily exposed via exfoliation with tape.

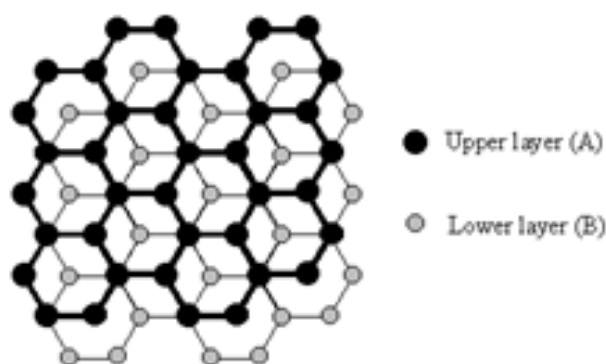


Figure 1:

Graphite structure can be described as an alternate succession of these plans, such as:
“... ABABAB ...”

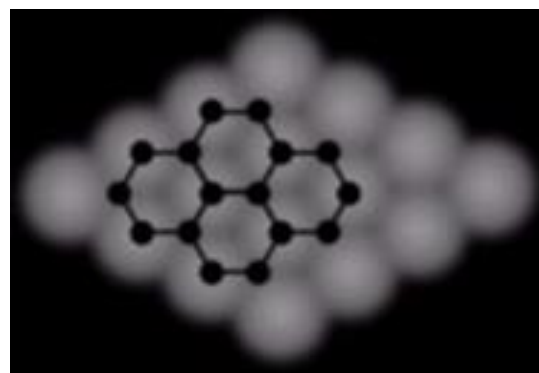


Figure 2:

Typical STM image of HOPG surface. Corresponding fragment of graphene structure is superimposed.

APPLICATIONS:

- Scanning Tunneling Microscopy Calibration Samples
- SPM Substrates
- Monochromators
- X-Ray Diffractometry
- Neutron Scattering Experiments and Diffractometry

SPECIFICATIONS:

- ZYB Quality / Mosaic Spread $0.8^{\circ} \pm 0.2^{\circ}$
- Substrate Size 1 x 10 x 10mm
- Grain Size up to $1\mu\text{m}$ – Single-sided

This HOPG is double-sided and both top and bottom surfaces may be used for imaging.

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