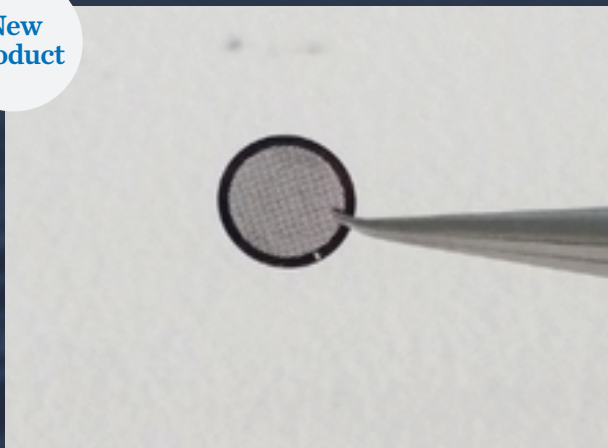


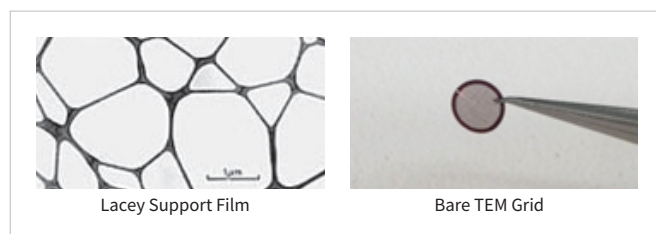
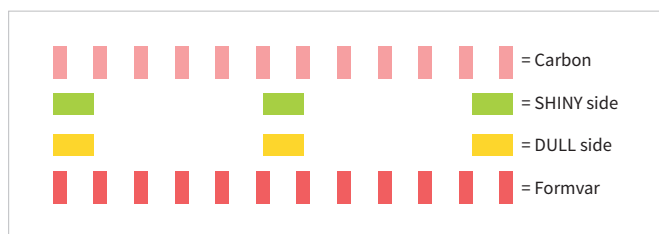
New
Product



CVD Graphene on TEM Grid

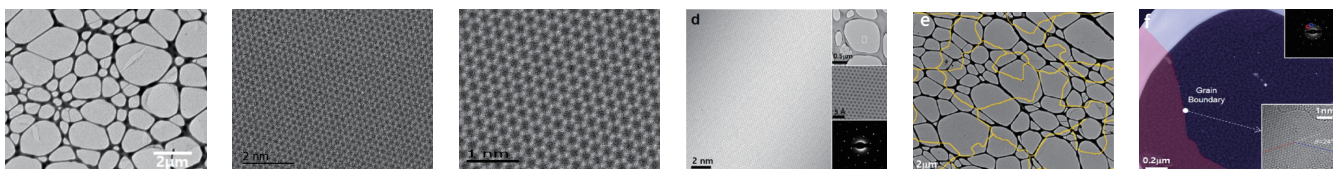
TEM Grid	Graphene
Grid Hole Size : 63μm	Sheet Resistance : Av. < 250~400 Ω/sq
Lacey Carbon Type-A	Mobility : >3500cm ² /Vs (Max. 17,000 cm ² /Vs)
300 mesh	Transmittance : >97%
Copper frame	Coverage : <30% (PMMA-free), <60% (2-layers)

Grid Cross Section



Lacey carbon Type A : The Lacey formvar film is applied to the dull side of the grid and carbon deposited onto the shiny side. When the formvar is removed in solvent the carbon film is left on the shiny side.

Measurement data



(d) HR-TEM results showing the atomic lattice structures of RT-CVD graphene. The graphene samples were prepared with holey carbon grid (upper inset). The aberration-corrected scanning TEM image provides an atom-by-atom analysis of graphene (mid inset). The diffraction pattern indicates the corresponding graphene is a highly crystalline monolayer (lower inset). (e) Graphene domain distribution investigated by selected area diffraction patterns (SADP) and TEM imaging. (f) Graphene boundaries of RT-CVD graphene characterized by dark-field TEM and aberration-corrected HR-TEM images. The left and right parts of the grain boundary are imaged with an aperture at the red and blue circled spots of the diffraction pattern (upper inset). The atomic image shows that two graphene domains are smoothly connected with an angle of 36° (lower inset). See also Supporting Figure S2 for more dark-field TEM analyses.

Reference

- (1) Kim, Sang Jin, et al. "Simultaneous etching and doping by Cu-stabilizing agent for high-performance graphene-based transparent electrodes." *Chemistry of Materials* 26.7 (2014): 2332-2336.
- (2) Ryu, Jaechul, et al. "Fast synthesis of high-performance graphene films by hydrogen-free rapid thermal chemical vapor deposition." *ACS nano* 8.1 (2014): 950-956.



GRAPHENE SQUARE

HEADQUARTERS

Graphene Square Inc.

Inter-University Semiconductor Research Center

Seoul National University 1 Gwanak-ro, Seoul 08826, Korea

TELEPHONE. +82-2-880-6569

E-MAIL. info@graphenesq.com

WEBSITE. www.graphenesq.com