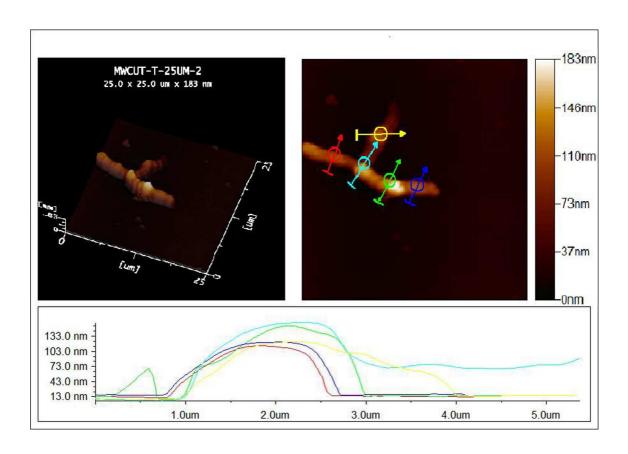
## **Supplementary Information**

## **Longitudinal Cutting of Pure and Doped Carbon Nanotubes to Form Graphitic Nanoribbons Using Metal Clusters as Nanoscalpels**

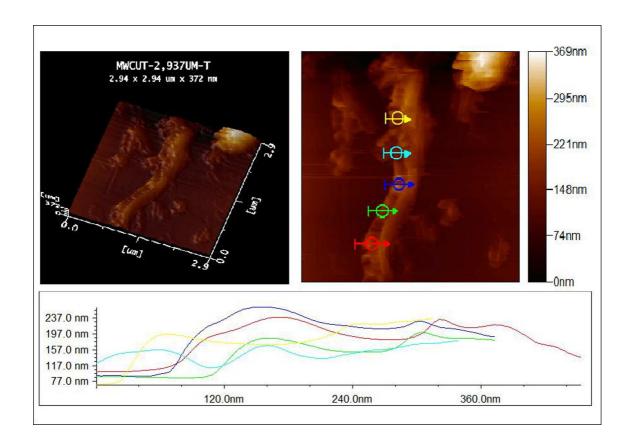
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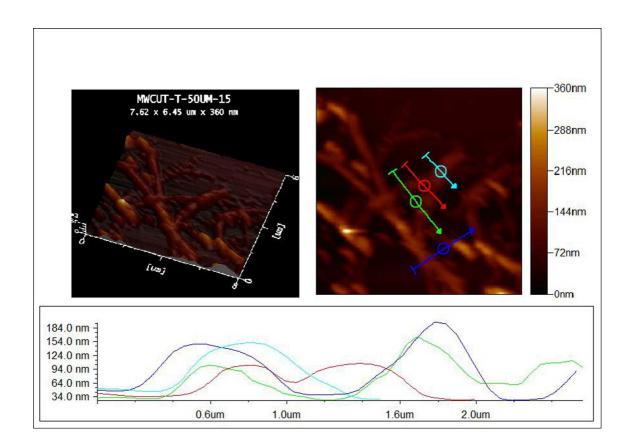
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**Figure S-1.** AFM image of two isolated pristine carbon nanotubes on a Si substrate. We include 5 surface profiles along different lines of nanotubes for control purposes. Note that all the profiles exhibit round cross-sections.



**Figure S-2.** AFM images of an unzipped CNxMWNT. We include surface profiles along different lines on the cutting. We follow the nanoparticle path by analyzing the surface profile along different line-scans depicted by arrows. Note that all these profiles exhibit a central deep, which corresponds to the central opening created along the tube.



**Figure S-3.** AFM image of pristine CN<sub>x</sub>MWNTs on a Si substrate. We show surface profiles along different lines. Note that all the profiles exhibit round cross-sections and exhibit no deeps in the central regions.