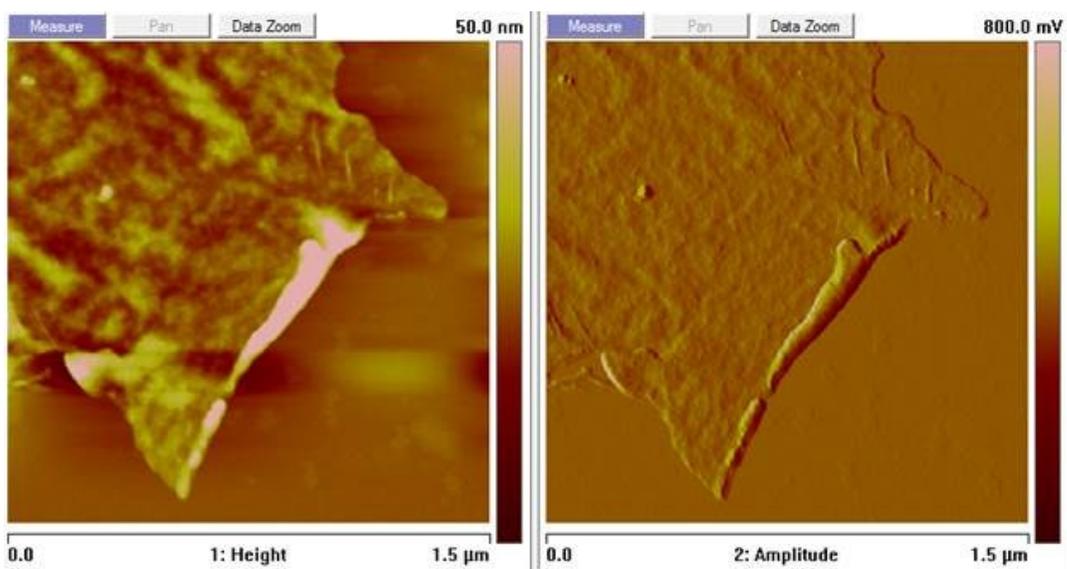
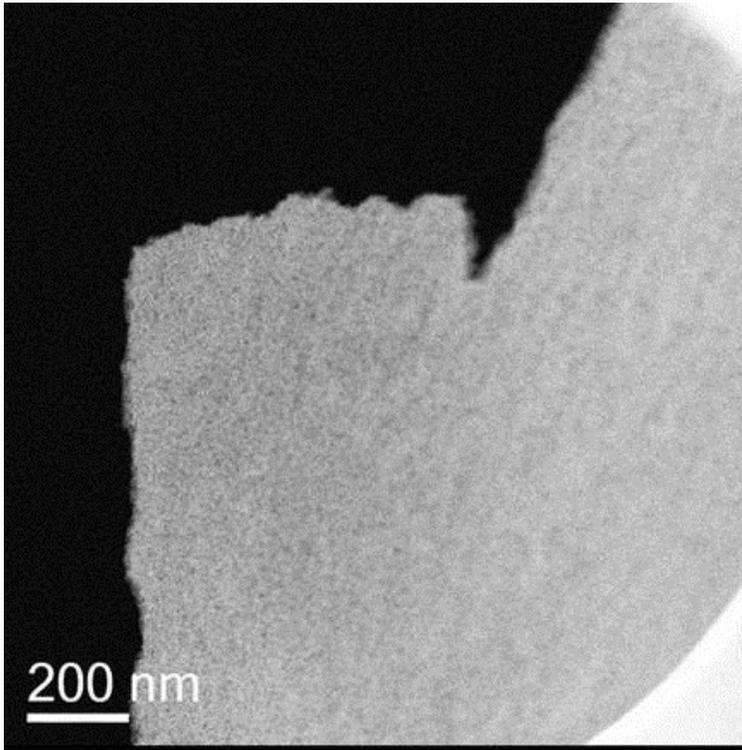


## Supporting Information



**Figure SI 1:** Typical AFM measurement of a single, rolled up sheet transferred to a silicon surface illustrating the large scale homogeneity, transferability and the mechanical intactness of each single carbon nanosheet. Left: Height view; right: amplitude view.



**Figure SI 2:** 3D tilt series resulting in a tomographic view of a single, free standing carbon nanosheet of S-CS. To be viewed after copying into a viewing program, such as Acrobat Reader.