33－30 Novel "Wet Process" Technique Based on Electrochemical Replacement For the Preparation of Fullerene Epitaxial Adlayers

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The electrochemical replacement method to form epitaxial adlayers of fullerene on Au (111) surfaces was proposed and demonstrated by in-situ electrochemical STM. The new "wet process" method consists of the transfer of Langmuir films of fullerene onto iodine-modified Au (111) surfaces at air-water interface and followed by the electrochemical removal and the replacement from iodine adlayers to fullerene adlayers in solution. The fullerene adlayers prepared by this method showed excellent quality and uniformity, and they were essentially same as epitaxial adlayers prepared by sublimation.

(Langmuir, Vol. 17(1), pp. 5-7, 2001.)

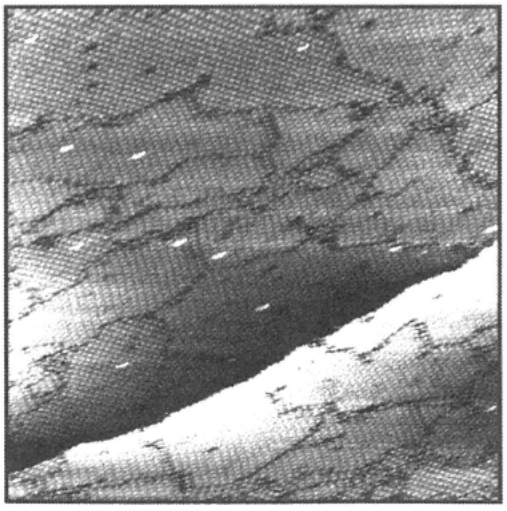

Figure. An in situ STM image of C_{60} epitaxial adlayer prepared by the electrochemical replacement method.