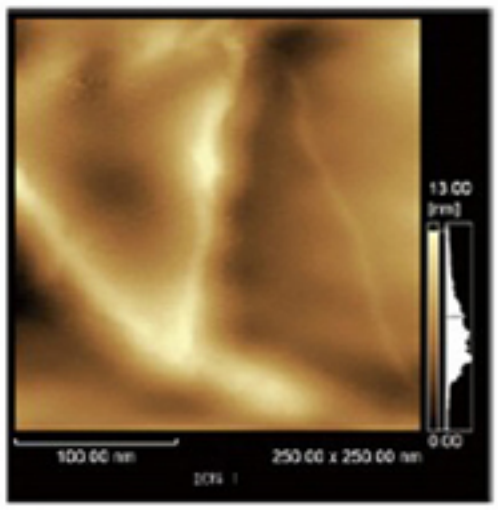
SWNTs的包裹观察II

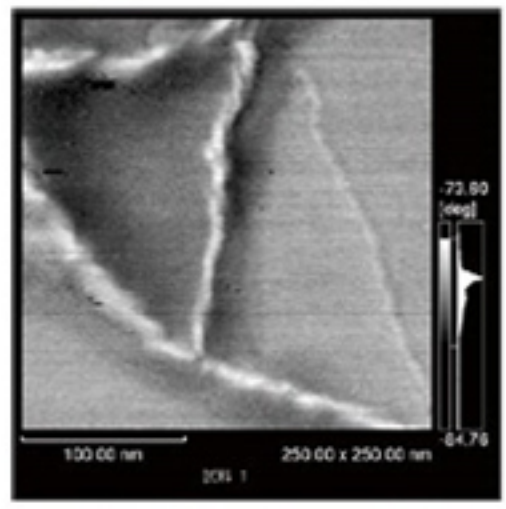
Observation of SWNTs Composite

共轭聚合物包裹

Conjugated polymer - wrapped SWNTs



凹凸像
Topographic image



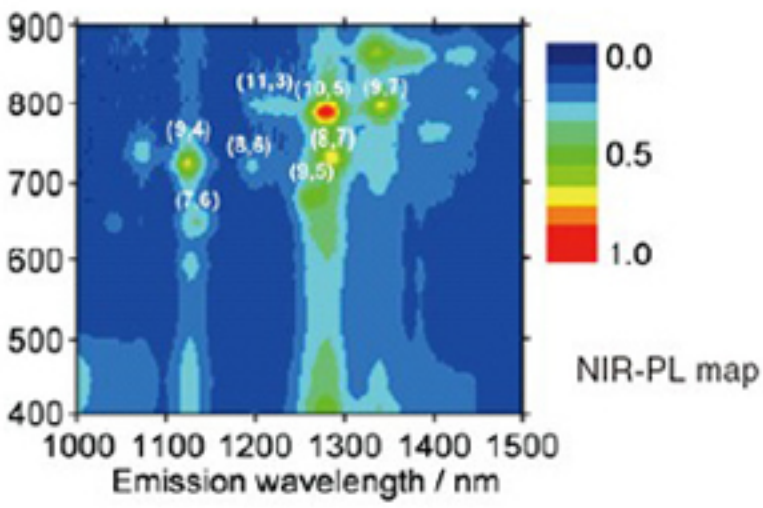
位相像
Phase image

把coPPV分散的CNT滴到云母上，干燥后进行AFM观察。

可以观察到CNT单体及coPPV包裹的CNT。

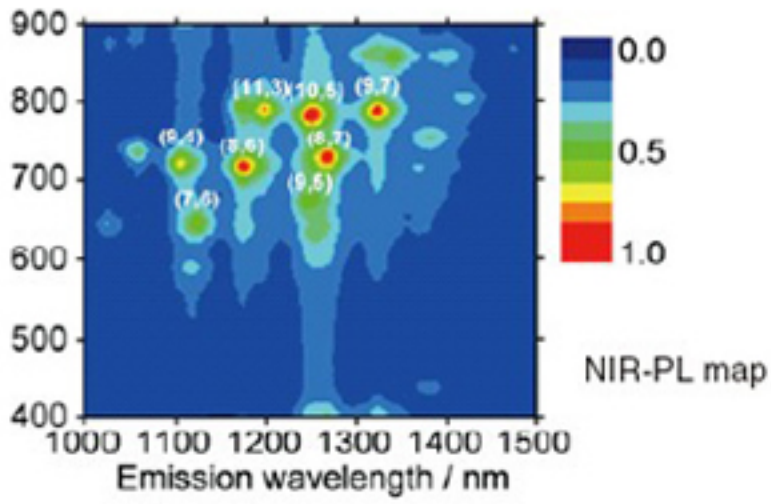
Dispersed CNT using coPPV was dropped and dried on mica base plate, the AFM observation was carried out.
The coPPV-wrapped CNT was existed, but not wrapped one was also found.

coPPV分散的SWNTs



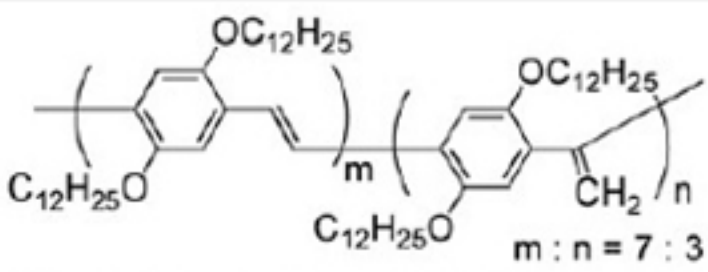
NIR-PL map

SDBS分散的SWNTs

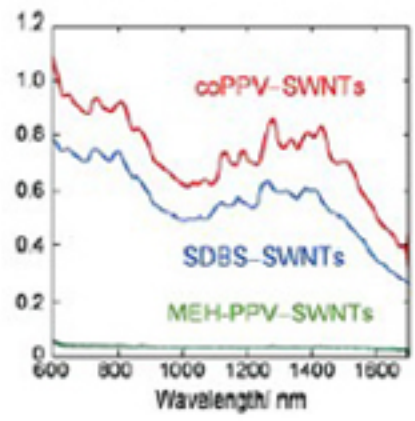


NIR-PL map

coPPV



coPPV: Poly[(p-phenylene-1,2-vinylene)-co-(p-phenylene-1,1-vinylidene)]



VIS-NIR absorption

比较SDBS分散与coPPV分散结果，特别是能够体现手性指数（10，5）的荧光强度，显示出CNT的选择性分离。

通过修饰coPPV的聚乙烯比例（m:n），能够改变分离的CNT。

Comparing fluorescent intensities of coPPV dispersion with that of SDBS dispersion.
The distribution is concentrated to chirality index (10,5), so this suggests that the selective isolation has been occurred.

There is a possibility being changed for isolation dispersed CNT by modification of the vinylidene raio (ratio of m:n) in coPPV.

Ref.
T.Umeyama et al.,
Chemical Physics Letters 444(2007)263-267

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