

عنوان مقاله:

Functionalization of Carbon nanotubes by Ultraviolet-Ozone treatment

محل انتشار:

نخستین کنگره بین المللی نانوفناوری و کاربردهای آن در صنایع نفت، گاز و پتروشیمی (سال: 1385)

تعداد صفحات اصل مقاله: 2

نویسندگان:

(Ali Mohajeri - Adsorption and Nanostructure lab, Gas department Research Institute of Petroleum Industry (RIPI

Alimorad Rashid

Leila Moradi

Naeimi

خلاصه مقاله:

Purification, chemistry and application are very important aspects of current research on carbon nanotubes (CNTs). In this way, the functionalization of CNTs is a good method to enhance the desired properties of CNTs. A number of functionalization reactions on CNTs (Multi walled carbon nanotube (MWCNT) and Single Walled Carbon nanotube (SWCNT)), have been studied by using carbenes, fluorine, aryl radicals, azomethine ylides, to achieve the desired properties. In this research, we use the ultraviolet-ozone treatment for functionalization of MWCNTs. The reaction product contains many functional groups such as hydroxyl, carbonyl and acidic. The acidic group (CNT-COOH) can convert to acyl chloride as an intermediate and finally converted to amides and esters with suitable reagents. Functionalized CNTs have found broad application, including composite materials, sensors, and biomaterial

کلمات کلیدی:

Carbon nanotubes, Functionalization, Solubilization, Ozonolysis

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/22072>

