
氟化碳纳米管

Fluorinated Carbon Nanotubes

产品介绍 Product introduction



氟化碳纳米管（FCNTs）外观为粉末状固体，颜色随氟碳比提高逐渐由黑变为灰白，直至呈现白色。碳纳米管（CNTs）自上世纪 90 年代被发现后，受到了人们的广泛关注。但是由于 CNTs 表面的相对惰性，且容易团聚缠绕，很难在介质中分散，限制了其应用，因此对 CNTs 进行表面修饰成为了 CNTs 研究领域的热点。FCNTs 一方面保持了其原本的三维管状结构，另一方面显著改变了其表面特性、导电性、润滑性等性质，使其可以通过亲核取代进行进一步的表面修饰，这些特点使 FCNTs 在锂电池正极材料、固态润滑、复合物填充剂等领域具有独特的用途。采用不同直径和种类的碳纳米管，可以合成具有不同直径的单壁、少壁及多壁的氟化碳纳米管。

Fluorinated carbon nanotubes (FCNTs) are powder solid, and their color gradually changes from black to gray to white with the increasing of F/C ratio. Carbon nanotubes (CNTs) have received a lot of attentions since they were discovered in the 1990s. However, due to the relative inertia of the CNTs surface and the fact that they are easy to agglomerate and difficult to disperse, which limits their applications. Therefore, the surface modification of carbon nanotubes has become a hot research topic in the field of CNTs. On the one hand, FCNTs maintain their original three-dimensional tubular structure; on the other hand, their surface properties are significantly changed, such as conductivity and lubricity, so that surface properties can be further modified by nucleophilic substitution. These characteristics make FCNTs have a unique use in the field of lithium

primary battery cathode materials, solid lubrication, composite filling agent and so on. FCNTs are prepared from different diameters and types of carbon nanotubes by fluorination, including single, few and multi-walled FCNTs with different diameters.

产品用途 Application

氟化碳纳米管具有独特的电化学特性，在传感器、电子器件、芯片等领域具有一定的应用潜力。另外可通过表面微氟化改性，提高其亲水性，改善碳纳米管在溶液中的分散性能。

FCNTs have unique electrochemical properties and have potential applications in sensors, electronic devices, chips and other fields. In addition, surface fluorination of carbon nanotubes can be used to improve the hydrophilicity and dispersion of carbon nanotubes in solution.

包装、贮存 Packaging and storage

包装规格有 10g、50g、100g、500g、1kg、5kg 和 10kg 以上规格，以满足科研院所及生产企业的不同要求。根据量的不同有塑料瓶直接包装、双层塑料袋包装、外套塑料桶或纸板桶包装。产品最小起订量为 10g。

The packing specifications are 10g, 50g, 100g, 500g, 1kg, 2kg, 5kg and 10kg above, to meet the different requirements of scientific research institutes and production enterprises. According to different amount, fluorographite are packed by plastic bottles, double plastic bags, plastic bucket or cardboard bucket. The minimum order quantity is 10g.