

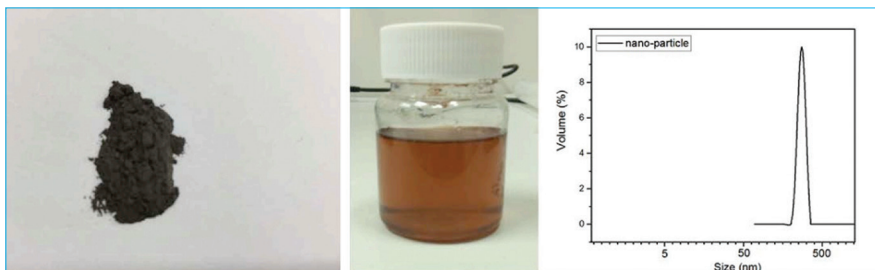
新型玻璃用高分散透明隔熱塗料

Novel Highly Dispersed Transparent Heat Insulation Paint for Glass

具有高隔熱係數的水性塗料

A water-based paint with a high coefficient of heat insulation

本項目旨在開發一種全新的高分散納米透明隔熱塗料。該塗料所需的原料全部產自中國或自主合成。項目結合了溶膠凝膠技術及高溫水熱合成的方式，生產出透明導電氧化物石墨烯(TCO-Graphene)納米複合粉體，加上研究小組獨有的納米高分散工藝，令製成品具有卓越的可見光透過率。相比現有的透明隔熱塗料，本技術製成品的光學性優異，且成本低廉。



氧化錫銻-石墨烯納米粒子及其在水中分散的二次粒徑大小
ATO-Graphene nanoparticles and their second particle size in water



隔熱玻璃 (A) 和普通玻璃 (B)
Heat insulation glass (A) and ordinary glass (B)

In this project, a new kind of highly dispersed transparent heat insulation paints were developed. The raw materials needed for such paints are sourced from the Chinese mainland or self-synthesized. Through combining the sol-gel process and high-temperature hydrothermal synthesis, TCO-Graphene nanocomposite powders were produced. With our unique nano-dispersion process, the final product has excellent visible transparency and infrared insulation performance. Compared to existing products, the new paint features better optical properties and much lower production costs.

特色與優點

- 具有高分散度、透明度和傳導性，且對紅外有高度屏蔽作用
- 其VOC含量、游離甲醛含量和重金屬含量分別小20g/L，0.03g/L和0.1mg/Kg

應用

- 窗戶、玻璃幕牆及汽車玻璃等



水性隔熱塗料
Water-based heat insulation paint

Special Features and Advantages

- Highly dispersed, transparent and conductive with high shielding rate in infrared radiation
- Water-based with VOC value, formaldehyde content and heavy metal content of less than 20 g/L, 0.03g/L and 0.1mg/Kg respectively

Applications

- Windows, curtain walls and automotive glass, etc

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