

回收PET製備水性高分子分散劑

Polymeric Dispersants from Recycled PET

林政凱*，林建琛，何奇律，顏巨倫

台灣中油股份有限公司 煉製研究所 石化產品組 078883@cpc.com.tw

摘要

Polymeric materials play a decisive role in the advances of polymer material industry. In particular, the applications of polymer nanocomposites have been rapidly developed in recent years due to the growth and demand of the optoelectronics industry. The essential element to successfully make high performance polymer nanocomposites is the dispersion of inorganics in polymer matrices in homogeneous manner by the proper selection of dispersants. The nanocomposite with large specific surface area and van der Waals' force among the involved inorganic materials can be the cause of the aggregates, resulting in precipitation or clustering of two distinctly different inorganic/organic materials. The use of dispersants may improve the homogeneity and achieve a fine dispersion of the nanomaterials in organic polymer matrix as well as facilitate the mixing process. Therefore, the development and application of the polymeric dispersants are the core technology that is controlling the ultimate function and performance of the nanocomposites. The experimental results have accomplished recycled PET-derived cross-linked ester-acid linkage dispersant. The titanium dioxide (TiO_2) nanomaterials are the target for dispersing applications

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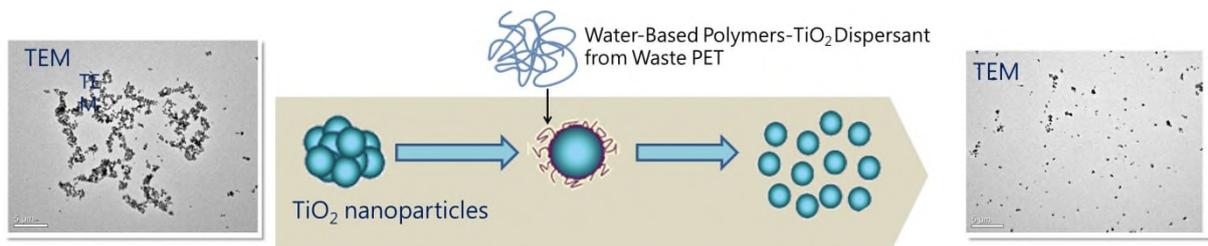


圖 1. 高分子分散劑作用機制示意圖