PHB與水溶性澱粉摻合體的製備與性質測試

In this study, the preparation and properties of poly-3-hydroxybutyrate (PHB) blended with soluble starch are discussed. PHB is hard and brittle due to its high degree of crystallinity and high melting point. Therefore, it is desirable to blend PHB with other polymers to improve its toughness and processing window. The composition prepared in this research are as follows: PHB/soluble starch =10/90, 30/70, 50/50, 70/30, 90/10, and added with two kinds of plasticizer.Thermal degradation behavior was analyzed by thermal gravimetric analysis, the glass transition temperature Tg and the degree of crystallization of the blends were observed by differential scanning calorimetry. The dynamic mechanical properties of blends were analyzed and their morphology were characterized by the scanning electron microscopy.