

PROCESS AND PRODUCT TECHNOLOGY

超临界二氧化碳渗透聚丙烯成核剂的初步研究

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摘要 Impregnation of isotactic polypropylene (iPP) with nucleating agent (NA21) using supercritical carbon dioxide as the swelling agent at different temperature and pressure and its non-isothermal crystallization kinetics were investigated. The results showed that NA21 was dispersed at a nanometer-scale in the PP matrix, resulting in the formation of different types of crystal phases of iPP and the enhancement of its mechanical properties.

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Preliminary Study on the Characteristics of Isotactic Polypropylene with Nucleating Agent Swollen by Supercritical Carbon Dioxide

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Abstract Impregnation of isotactic polypropylene (iPP) with nucleating agent (NA21) using supercritical carbon dioxide as the swelling agent at different temperature and pressure and its non-isothermal crystallization kinetics were investigated. The results showed that NA21 was dispersed at a nanometer-scale in the PP matrix, resulting in the formation of different types of crystal phases of iPP and the enhancement of its mechanical properties.

Key words [supercritical carbon dioxide](#); [polypropylene](#); [nucleating agent](#); [mechanical performance](#)

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