

## Studies on the effect of supercritical carbon dioxide for crystallization temperatures of Polyethylene terephthalate

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The effect of high-pressure carbon dioxide treatment on crystallization behavior of poly(ethylene terephthalate, PET) was investigated by the DSC studies. In this study, the influence of liquid and supercritical carbon dioxide on the thermal properties and crystallization behavior were investigated at high pressure ranging from 10 MPa to 30 MPa(10, 20 and 30 MPa) and several temperature condition(30, 50, 60, 70 °C). All of PET samples(about 10 mg) were put in DSC sample pans. To remove processing history of virgin PET sample before a treatment, all of sample in the sample pans were kept in DSC cell at 290 °C for 10 min. Then they were quenched under ambient temperature in liquid nitrogen. And carbon dioxide treatment.