

PMMA Synthesis in Supercritical Carbon Dioxide

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Poly(methyl methacrylate) (PMMA) is synthesized in supercritical carbon dioxide with 2,2-azo-bis(isobutyronitrile) (ABIN) initiator. We determine the effect of pressures on the polymerization and the properties of the synthesized PMMA. Also, the effect of methyl methacrylate concentration in SCF carbon dioxide on the properties of the PMMA is studied. We measure thermal and optical properties of the PMMA. The morphology and molecular weight of the PMMA are also presented.