Abstract Submitted
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A Second Harmonic Generation Study of Polyethylene Crystallization[1] HOWARD WANG, NARAYAN CH DAS, Dept. Mech. Engr., Binghamton University, HONGTAO BIAN, YUAN GUO, HONGFEI WANG, Inst. Chem., Chinese Acad. Sci. — In situ optical second harmonic generation (SHG) measurements have been applied to studying kinetics of isothermal crystallization in polyethylene melts. The degree of crystallinity is revealed through correlating to the SHG intensity. The kinetics data at various degree of undercooling are analyzed using the standard Avrami equation. The detection sensitivity, error sources, advantages and limitations of SHG for studying polymer crystallization are discussed.

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Howard Wang
Binghamton University

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