Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

**Initiated Chemical Vapor Deposition of Poly(methyl methacrylate)** XICHONG CHEN, MITCHELL ANTHAMATTEN, University of Rochester — We are exploring a way to process Poly(methyl methacrylate) into thin films using initiated Chemical Vapor Deposition (iCVD) technique. A unique iCVD reactor was designed and several experimental parameters such as substrate temperature, hot-zone temperature, monomer/initiator molar ratio, hot-zone/substrate distance and reactor pressure were adjusted to achieve micron-thick, uniform films. Resulting films were investigated by GPC, optical microscopy, and white light interferometry. The deposition rate was about 1 micron /hr. Computational fluid dynamics software Fluent was used to understand and simulate gas flow inside the reactor chamber and to optimize the deposition process.

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Date submitted: 06 Dec 2006 Electronic form version 1.4