

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Gelation of Copolymers Photo-crosslinked by Pendant Benzophenones SCOTT CHRISTENSEN, RYAN C. HAYWARD, University of Massachusetts - Amherst — Copolymers containing pendant benzophenone (BP) groups provide a simple and powerful route to crosslinkable polymer films. While the solution state photo-chemistry of BP is well established, and crosslinking of polymers blended with BP has been studied in detail, the process of crosslinking by covalently attached BP has received comparatively little attention. We have prepared copolymers of BP with several different monomers, and studied gelation as a function of BP content and degree of photochemical conversion. We seek to understand the influence of polymer chemistry on crosslinking efficiency, to guide choices of materials for photo- crosslinkable polymer films and to provide a route for tailoring morphology in polymer blends.

Scott Christensen
University of Massachusetts - Amherst

Date submitted: 19 Nov 2010

Electronic form version 1.4