

Abstract Submitted
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Imaging studies of photodamage and self healing in Disperse Orange 11 dye-doped PMMA BENJAMIN ANDERSON, SHIVA RAMINI, MARK KUZYK, Washington State University — Photodamage occurs when a material is exposed to intense light. Damage to dye-doped polymers is of particular interest because many applications, such as all-optical switching materials, require intensities near the damage threshold to operate. Using optical imaging techniques we characterize the recovery of photodegraded disperse orange 11 dye doped PMMA thin films and compare results to our previous research using amplified spontaneous emission (ASE) and absorbance. We find that the recovery rates are consistent, but find a damage threshold above which the material does not fully recover.

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