

PHOTORESPONSIVE POLYESTERS AND POLYCARBONATES

JOY LAB – UNIV. OF AKRON

The Joy Lab has developed two families of photoresponsive polymers. The alkoxyphenacyl polyesters and polycarbonates undergo efficient polymer chain scission when irradiated at 300 nm. The coumarin polyesters crosslink upon irradiation at 350 nm and undergo chain uncrosslinking and/or chain scission upon irradiation at 254 nm. We are utilizing these polymer platforms for various applications such as controlled release matrices, fabrication of micropatterned surfaces for cellular guidance and antimicrobial surfaces.

