

## 광변색 고분자의 광학적 패터닝과 응용

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### **Optical Patterning and Applications of Photo-chromic Polymers**

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**Abstract:** Several kinds of photo-chromic polymers containing push-pull structure were synthesized and investigated on optical patterning by photo-induced surface relief gratings (SRG) technique. The azobenzene segment was introduced as a functional group for a photo-triggered *trans-cis* isomerization. Consequently, we have fabricated micro-size regular pattern by one-step process without photo-mask.

**Key Words:** Photo-chromic polymer, Surface relief grating, Photo-isomerization, Mask-free patterning