

Photo-functional Polymeric Materials - multilayered polymer composite for photo- mechanical applications..



Tomonari OGATA
Innovative Collaboration Organization, Kumamoto
University, JAPAN

Photo-functional materials are utilized for various purposes, such as optics, memory, display, illumination, etc. Polymeric optics are light weight, and suitable for mass production by soft-process. I will discuss two topics of polymeric photo-functional materials. The first concerns the modulation of the refractive index of polymer by composite with nano-material. By using of higher refractive index composite, metal-free multi-layered mirror was obtained. The second is about the photo-mechanical device. Recently, we succeeded in photo actuation of multi-layered film by single wavelength of VIS light.