Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information:

Photo-Induced Bending in a Light Activated Polymer Laminate Composite

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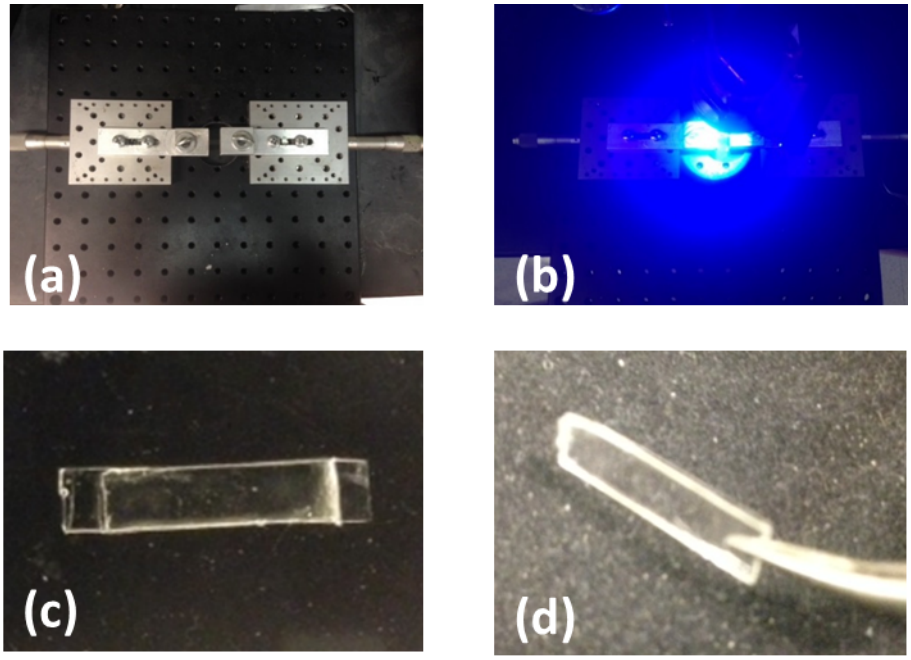
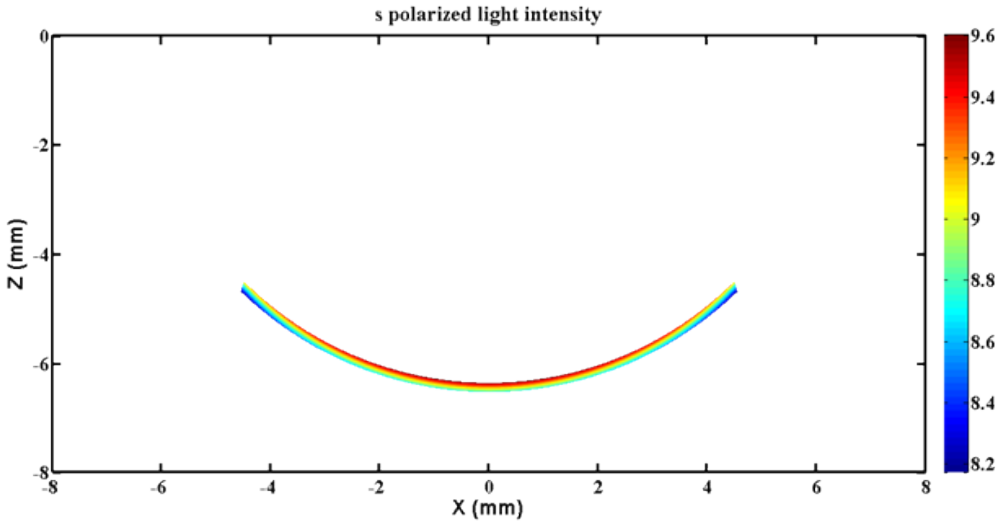
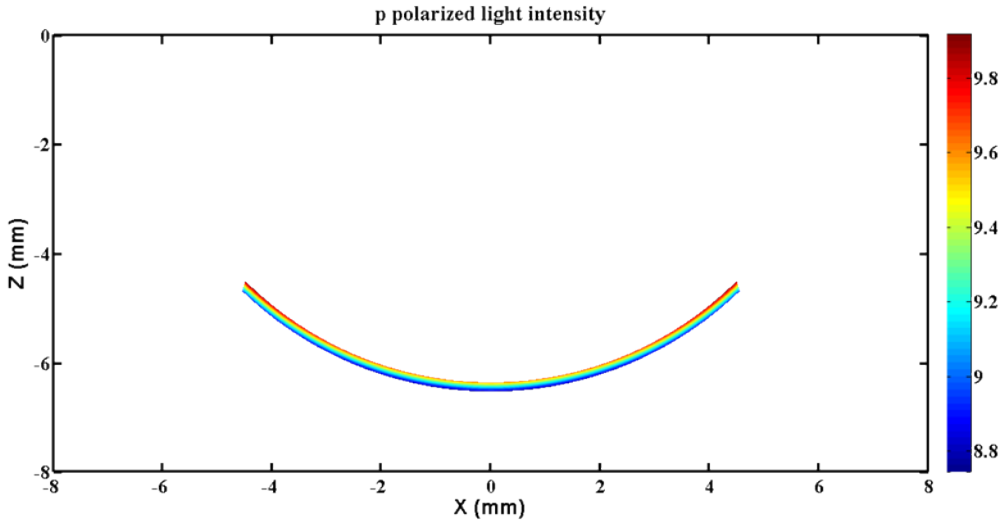


Figure S1. Photos showing procedures during fabrication: (a) intermediate layer was uniaxially stretched by the tensile clamps; (b) visible irradiation was used to photocure the adhesive (LAP solution) and bond the three layers together; (c) intermediate layer was unloaded; (d) two ends of the intermediate layer were cut off and a flat laminate composite was finally obtained.

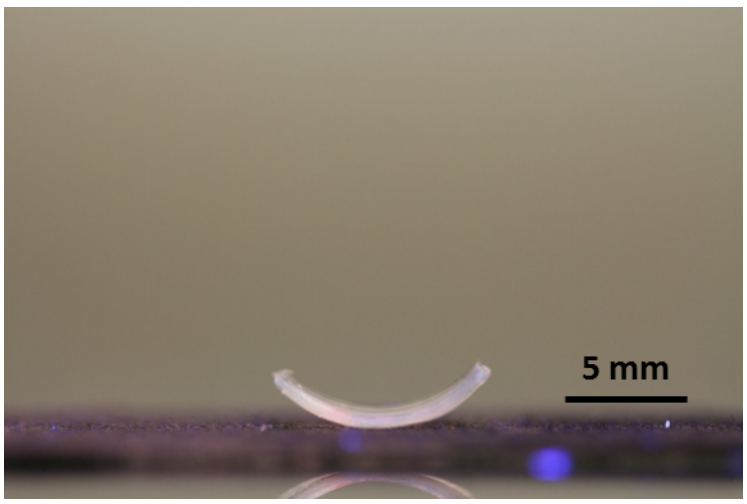


(a)



(b)

Figure S2. Light intensity fields: (a) s polarized light; (b) p polarized light of a 0.17 mm thick optically thin LAP layer at 10 mWcm^{-2}.



Video S1. This video demonstrates the photo-induced bending of a free standing laminate composite. The video speeds up for 150 times. The laminate in this video is 9.73 mm long with NOA65 as intermediate layer and was irradiated by 365 nm, 10 $mWcm^{-2}$ light for 15 minutes.

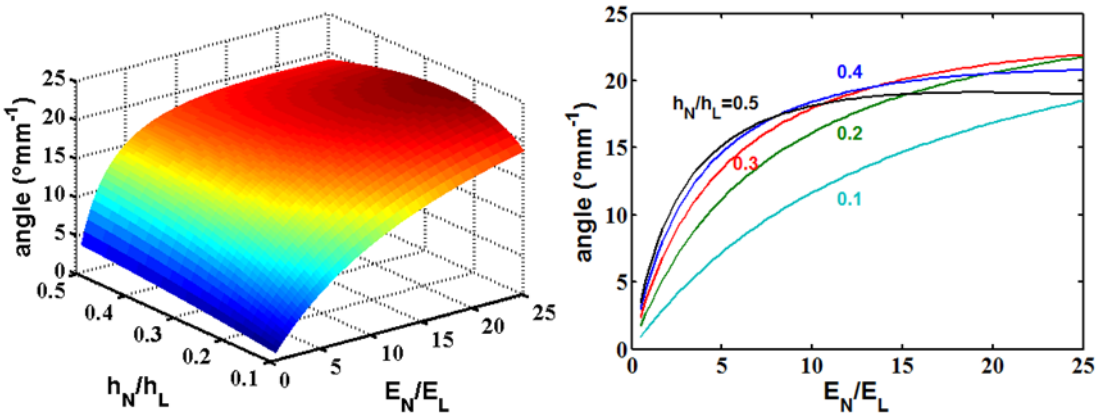


Figure S3. 3D and 2D plots for thickness ratio between 0.1 and 0.5. Other parameters are same as plots in Figure 6(a), $\varepsilon_0 = 15\%$, $h_L = 0.17\ mm$.