

Bio-inspired transparent structural color film and its application in biomimetic camouflage

Zipeng Meng,^{a‡} Baoting Huang,^{a‡} Suli Wu,^{a*} Lu Li^b and Shufen Zhang^a

^aState Key Laboratory of Fine Chemicals, Dalian University of Technology, 2 Linggong Road, Dalian 116024, P.R. China.

E-mail: wusuli@dlut.edu.cn

^bQingdao University of Science and Technology, Qingdao 266000, China.

Supporting Figures:

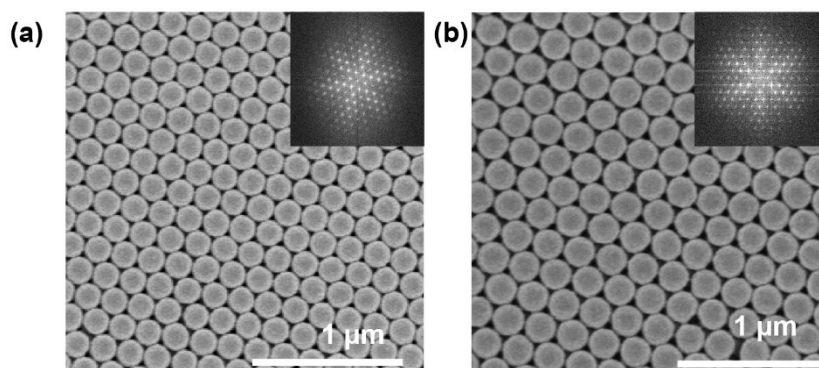


Fig. S1 (a-b) SEM images of the prepared S1 with the 186 and 229 nm of PMMA spheres, the inset is the corresponding 2D-FFT patterns.

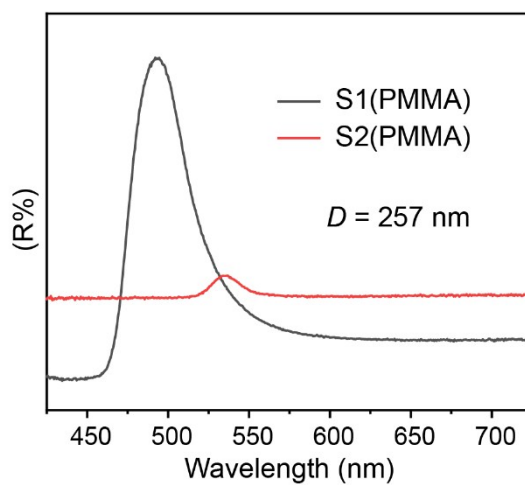


Fig. S2 Reflectance spectra of the prepared S1 with 257 nm of PMMA spheres and corresponding S2(PMMA 257 nm).

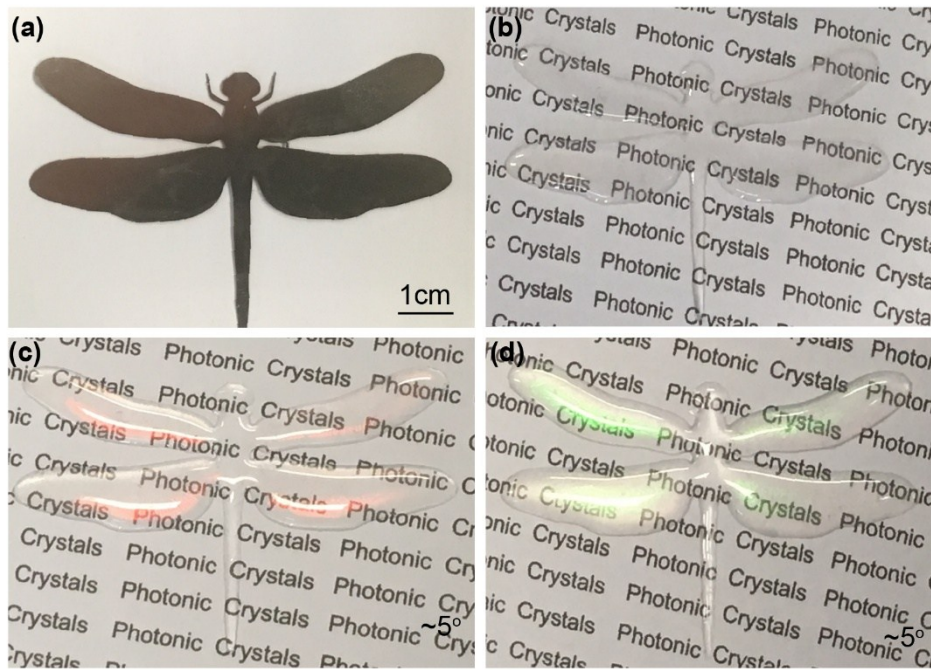


Fig. S3 (a) Digital image of the steel template with the shape of dragonfly and (b-c) Digital images of S2 with the diameter of 257 nm of PMMA spheres under ambient light and in the incident angles of 5° (c) Digital image of S2 with the diameter of 229 nm of PMMA spheres in the incident angles of 5°.

Table S1 Comparisons about PBG of different PCs film (Take $\theta = 45^\circ$ as the sample)

PCs film	S1	S2
PMMA (186 nm)	360 nm	391 nm
PMMA (229 nm)	443 nm	482 nm
PMMA (257 nm)	497 nm	541 nm