Supporting Information

Robust Photonic Microparticles comprised of Cholesteric Liquid Crystals for Anti-

forgery Materials

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Figure S1. a) Digital image of CLC-RM mixtures with reflections in the red, green, and blue wavelength ranges, respectively, were injected into 5 μ m planar cells. b) POM image of CLC-RM mixture injected in a 5 μ m planar cell in reflection mode. c) Reflectance spectra of CLC-RM films with different reflection colors.



Figure S2. a–c) Preparation of CLC-RM mixtures with RM compositions of 10, 20, and 30 wt%, respectively, as films of ~5 μ m thickness on glass. The film was irradiated with UV at an intensity of 2,250 mJ/cm² to polymerize RM. Scratch tests show that the best cured film is obtained with 30 wt% RM. Scale bars = 5 mm. d) Differential scanning calorimetry (DSC) thermograms according to the RM content. e) Isotropic transition temperatures of binary mixtures of RM257 and E7.



Figure S3. Series of OM images with increasing incubation time. The planar alignment of LC molecules in CLC-RM drops is enhanced by the incubation process for 6 h.



Figure S4. Mixed structure of CLC-MPs with right-handedness (RH) and left-handedness (LH). OM images of the CLC-MPs in reflection mode with a) no selection, b) selection of right-handed light, and c) selection of left-handed light. The CLC-MPs with opposite handedness to that of incoming light, become almost invisible in each case.

Movie S1. Generation of single emulsion drops of CLC-RM mixture by glass capillary microfluidic device.