Electronic Supplementary Material (ESI) for Nanoscale.

Supporting information

Asymmetric Structural Colors Based on Monodisperse Single Crystal Cu_2O spheres

Jiajie Bi [a], Yue Wu [a], Lu Li [b], Shufen Zhang [a] and Suli Wu [a]*

[a]State Key Laboratory of Fine Chemicals Dalian University of Technology, 2# Linggong Road, Dalian 116024, P.R. China, E-mail: wusuli@dlut.edu.cn

[b]Qingdao University of Science and Technology, China

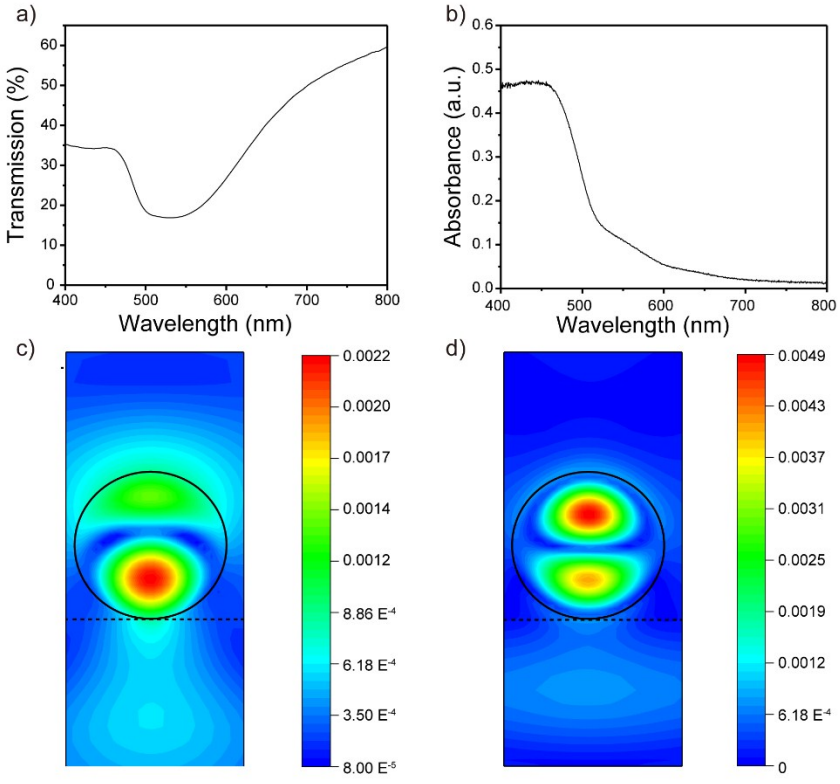

Fig. S1 The transmission (a) and the absorption (b) spectrum of the film built from 200 nm single crystal Cu_2O spheres; the distributions of magnetic field distribution of a single crystal Cu_2O sphere on a transparent glass slide calculated by a FDTD method from front incidence at 528 nm c) and back incidence at 498 nm d).

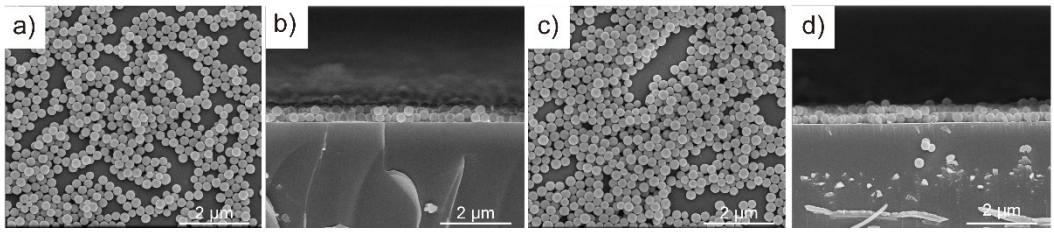

Fig. S2 SEM images and cross section of Cu_2O spheres with different size. (a-b) 240 nm; (c-d) 270 nm.

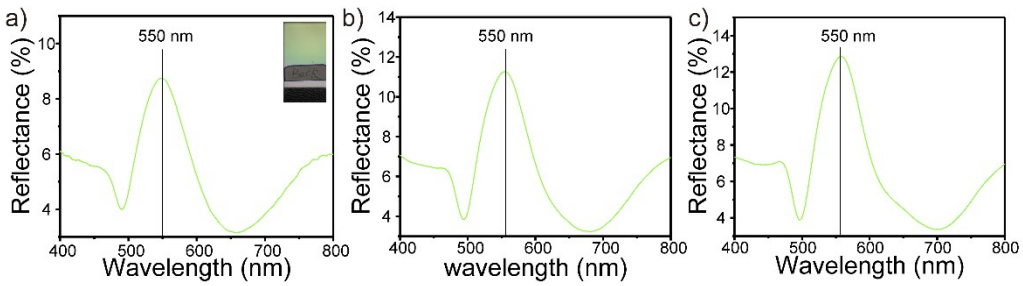

Fig. S3 The reflectance spectra and photographs of back side of different coverage density of the films with 240 nm single crystalline Cu_2O spheres.

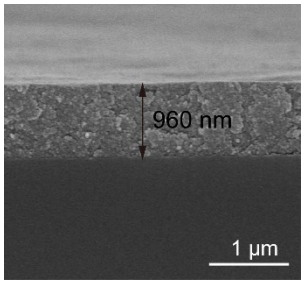

Fig. S4 The cross section SEM of TiO_2 layer.