

ADVANCED OPTICAL MATERIALS

Supporting Information

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Angle-Insensitive and CMOS-Compatible Subwavelength
Color Printing

*Kyu-Tae Lee, Ji-Yun Jang, Sang Jin Park, Chengang Ji, Sung-Mo Yang, L. Jay Guo, and Hui Joon Park**

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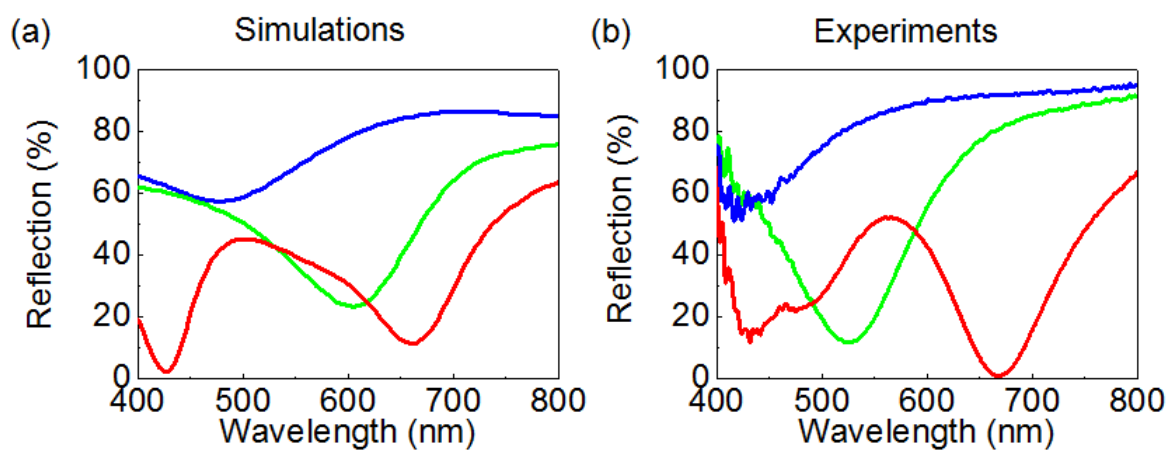


Figure S1. (a) Calculated and (b) measured reflection spectra of the proposed structural color filters at normal incidence for p-polarization.

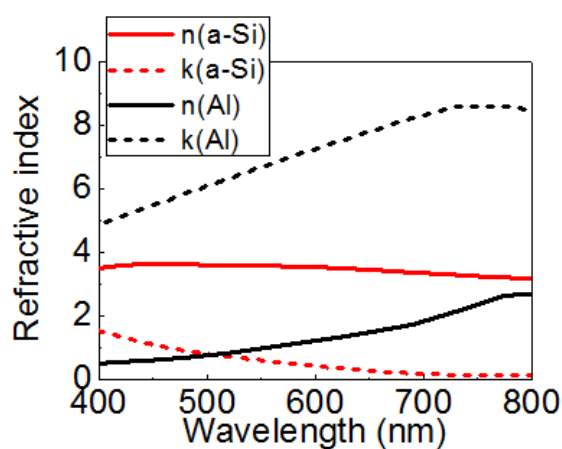


Figure S2. Refractive indices of Al (Palik) and a-Si, the latter of which were measured by using a spectroscopic ellipsometer (Elli-SE, Ellipso Technology Co.).

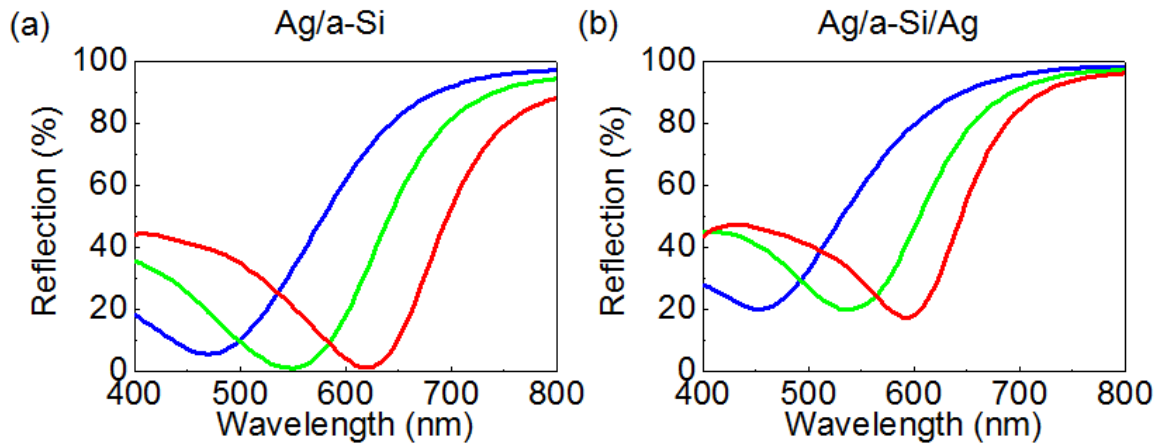


Figure S3. (a) Calculated reflection spectra of the structure with a bottom Ag substrate (i.e., Ag/a-Si). (b) Calculated reflection spectra of the structure of (a) with an additional thin Ag mirror on top of the a-Si gratings, exhibiting sharper resonances than what has been achieved with Al.

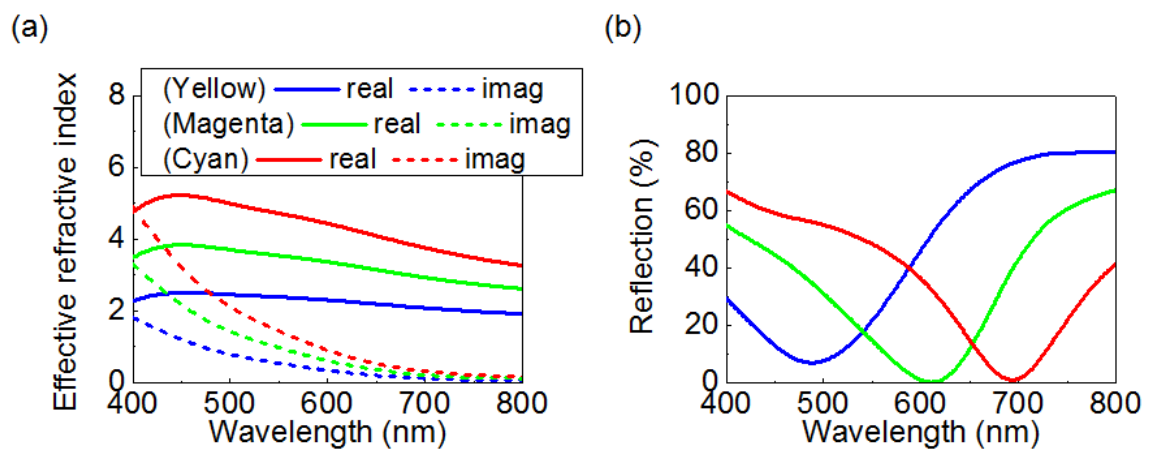


Figure S4. (a) Effective refractive index of the cavity medium comprising the a-Si gratings of the CMY color filters estimated by effective medium theory for s-polarization. (b) Reflection spectra of the CMY color filters calculated by effective medium theory.

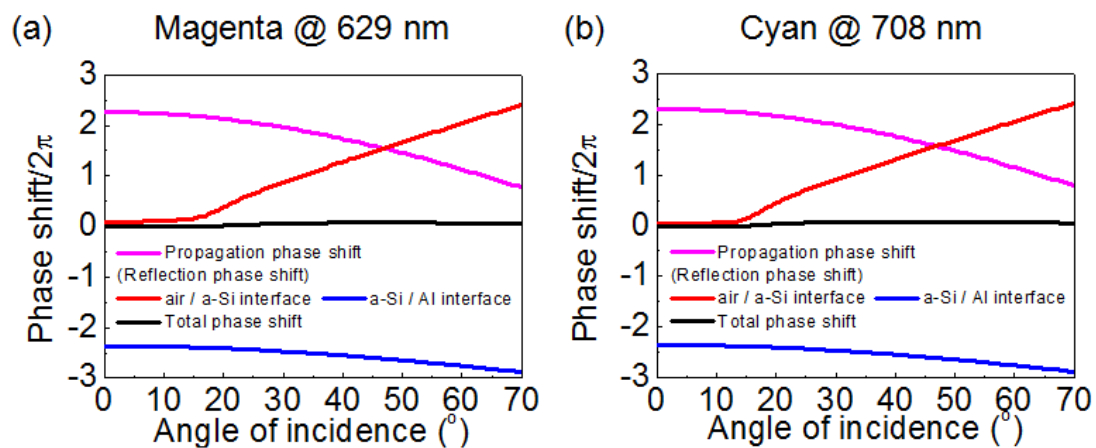


Figure S5. Calculated total phase shift for (a) magenta and (b) cyan color filters.