

**Movie S1** associated with Figure 6 exhibiting the emission intensity of  $\text{Cs}_2\text{NaBiCl}_6$  at various temperature under 254 nm excitation. Under 254 nm excitation, a bright orange-red emission was observed when the sample was immersed in liquid nitrogen. Then the sample was taken from the liquid nitrogen to air. The emission intensity gradually decreases with temperature, and the emission is scarcely observed at room temperature.

**Movie S2** associated with Figure 10(d) showing the dynamic anti-counterfeiting process. The pattern prepared by  $\text{Cs}_2\text{NaBiCl}_6$  was immersed in liquid nitrogen and excited by 254 nm for 30 s (this process was speeded up in the movie S2), and then a dark pattern was observed when the 254 nm lamp was switched off. The pattern gradually became bright when temperature rose after the pattern was taken from the liquid nitrogen to air for few seconds.