

Multi-Response Upconverted Ultraviolet-C Photons for Tagging and Sterilization

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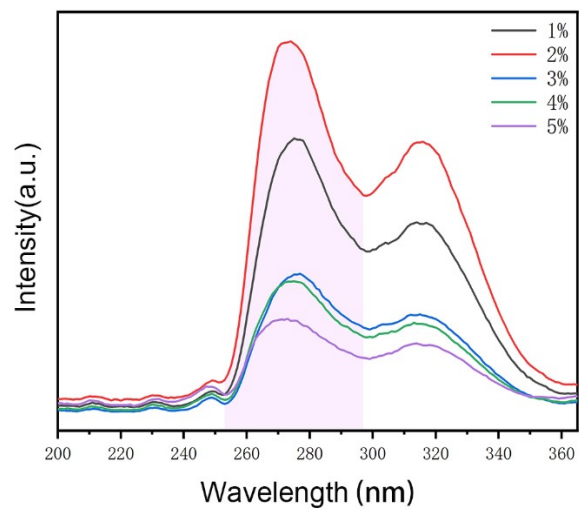


Figure S1. PL spectra of SrSiO₃:xPr³⁺ ($x = 0.01, 0.02, 0.03, 0.04, \text{ and } 0.05$) under excitation of a 450 nm laser.



Figure S2. Demonstration of tagging via SrSiO₃:0.02Pr³⁺ in a bucket by using a 450 nm LD as excitation source. (a) Top view, and (b) Side view. Left panel: under natural light, and right panel: under excitation of a 450 nm LD.

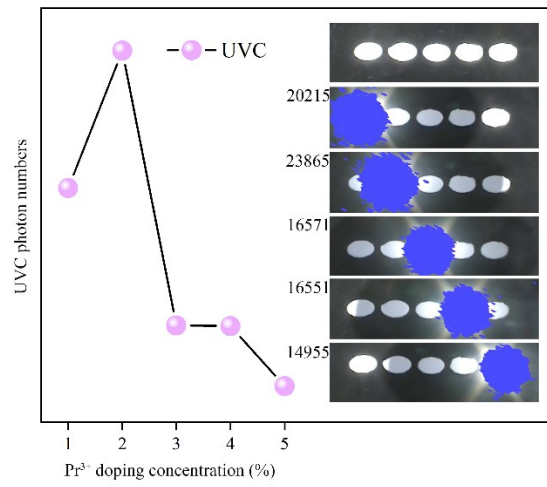


Figure S3. Number of the UVC photons of SrSiO₃:xPr³⁺ ($x = 0.01, 0.02, 0.03, 0.04,$ and 0.05) under excitation of sunlight.