

Supplementary information

Materials. All chemical reagents were analytical grade and purchased from Aladdin or Sinopharm chemical reagent Co., Ltd. All the reagents were used without further purification. Commercial red and green fluorescent powders, ferric magnetic powders were purchased from Chongqing Duniyin Technology Co., Ltd. ZnO powders were synthesized via traditional coprecipitation method and the super glue was commonly available in the market.

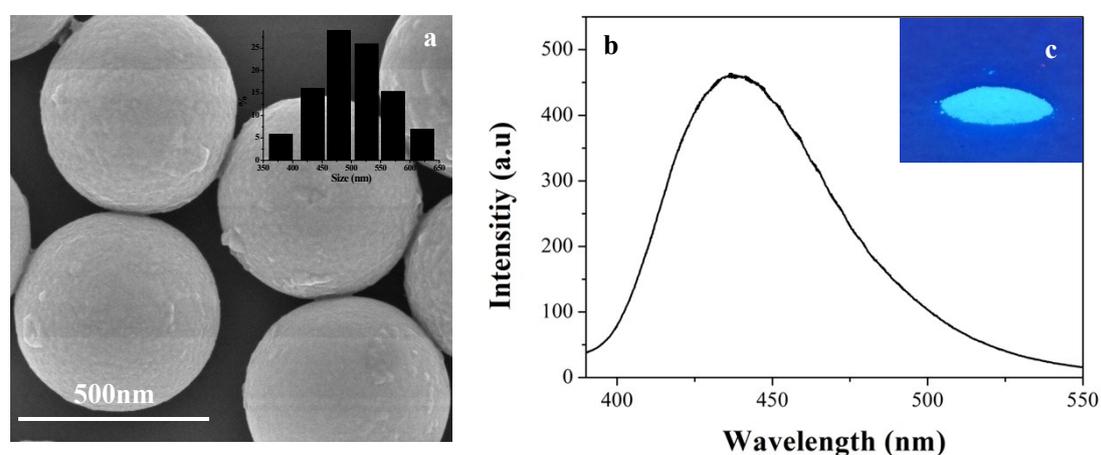


Fig. S1. (a) SEM of SiO₂@C-dot powders using APS as nitrogen source (referred to S1), with other reaction conditions unchanged; (b) photoluminescence spectrum of S1; (c) Photograph of S1 taken under 365 nm UV light in dark field.

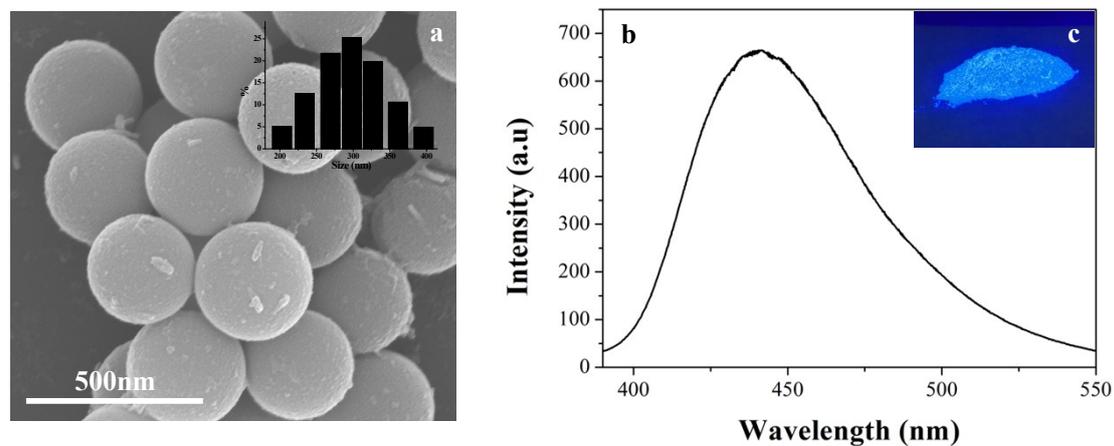


Fig. S2. (a) SEM of SiO₂@C-dot powders with average particle size of 300 nm (referred to S2); (b) photoluminescence spectrum of S2; (c) Photograph of S2 taken under 365 nm UV light in dark

field.

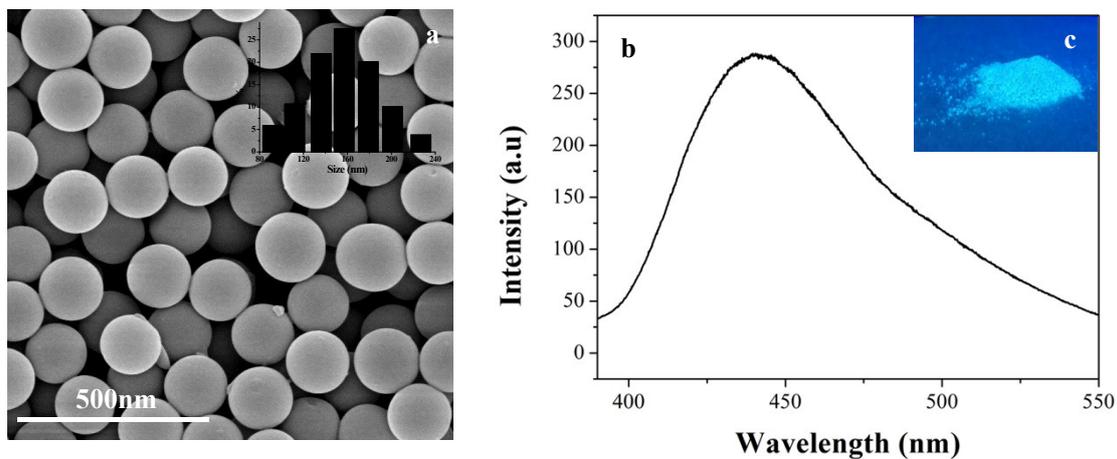


Fig. S3. (a) SEM of SiO₂@C-dot powders with average particle size of 150 nm (referred to S3); (b) photoluminescence spectrum of S3; (c) Photograph of S3 taken under 365 nm UV light in dark field.

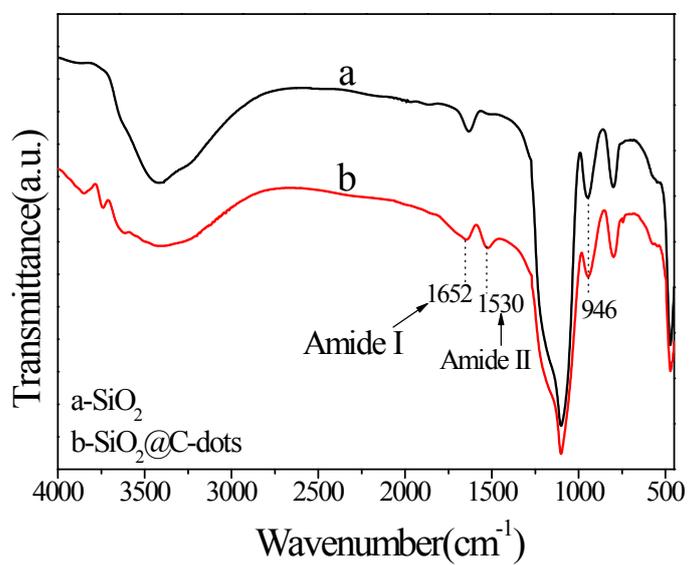


Fig. S4. FTIR spectra of SiO₂ (a) and SiO₂@C-dot powders (b), respectively

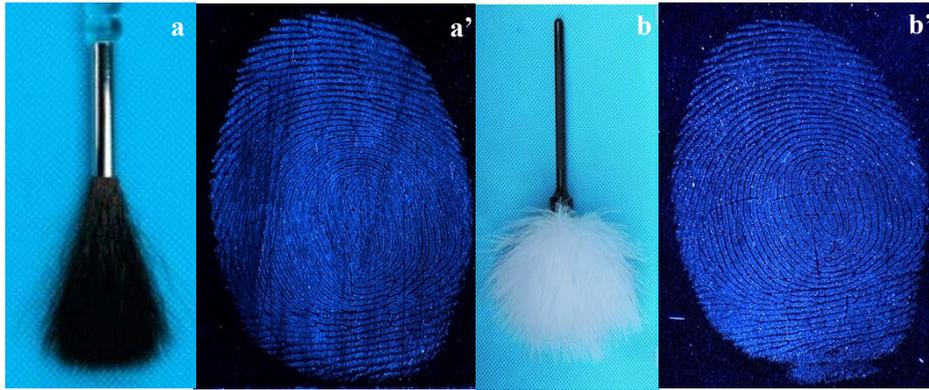


Fig. S5. Images of developed fingermarks by squirrel brush (a, a') and soft feather brush (b, b'), either observed by 365 nm UV light.

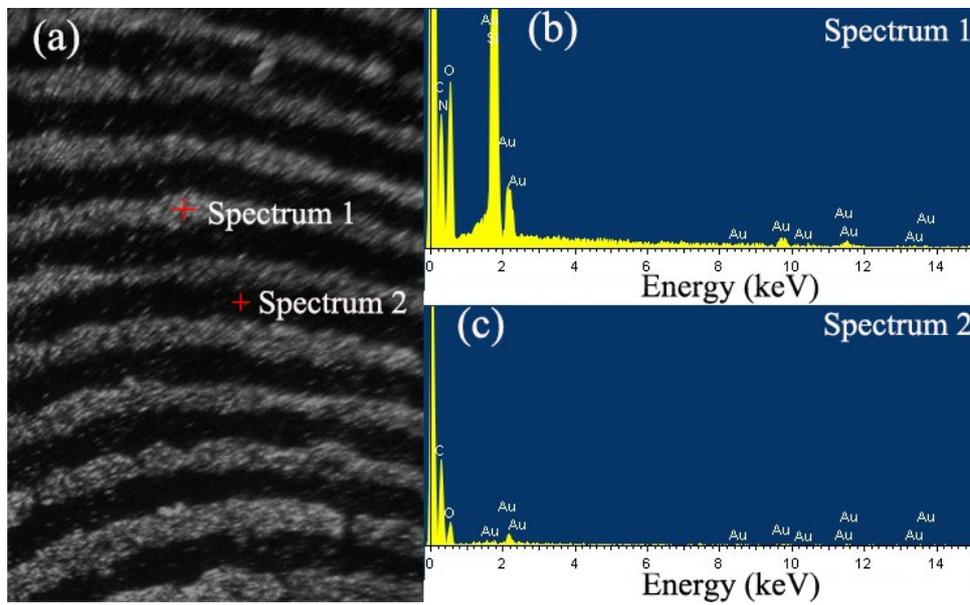
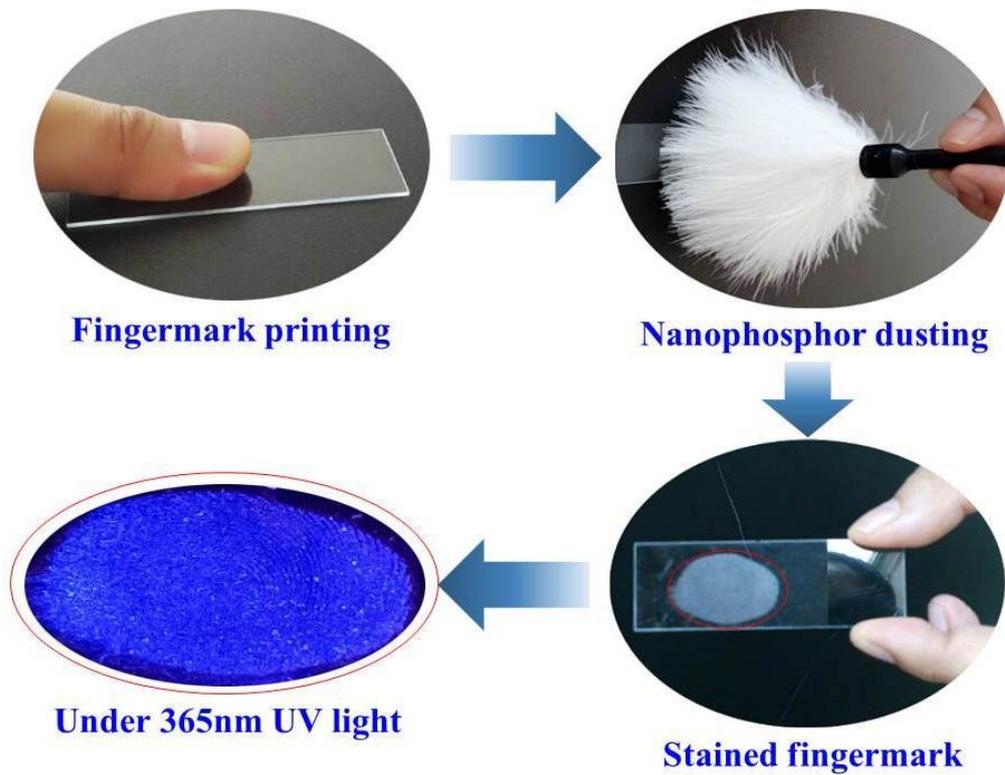


Fig. S6. SEM/EDS analysis of developed fingerprint on transparent plastic cards: (a) scanning electron microscope image, (b) ridge, and (c) furrow.



Scheme S1. Illustration of the rapid and facile identification of latent fingerprint using monodisperse SiO₂@C-dot microspheres.