

Supplementary Materials

To evaluate the capture efficiency for Au (5 nm) nanoparticles by using the prepared TiO₂-coated cellulose nanofibers, the Au nanoparticles were added into the aqueous containing TiO₂-coated cellulose nanofibers. The different color appearances of the coated cellulose before and after adding Au nanoparticles are exhibited by the photographs in Figure S1a,b, respectively. The suction filtration for capturing Au nanoparticles was carried out onto a filter paper (Grade 4A, Advantec, Co., Ltd., Tokyo, Japan) inside a vessel connecting to a vacuum pump. The surface images of the filter paper on-going filtration and after filtration are demonstrated in Figure S1c,d, respectively.

Figure S2 shows the morphology of the cellulose nanofibers without the TiO₂ coating in FE-SEM micrograph. Before the TiO₂ coating, it was distinguished that the surface of these cellulose nanofibers presented smooth status, for comparing with the rough surface condition of the cellulose nanofiber after the TiO₂ surface coating.

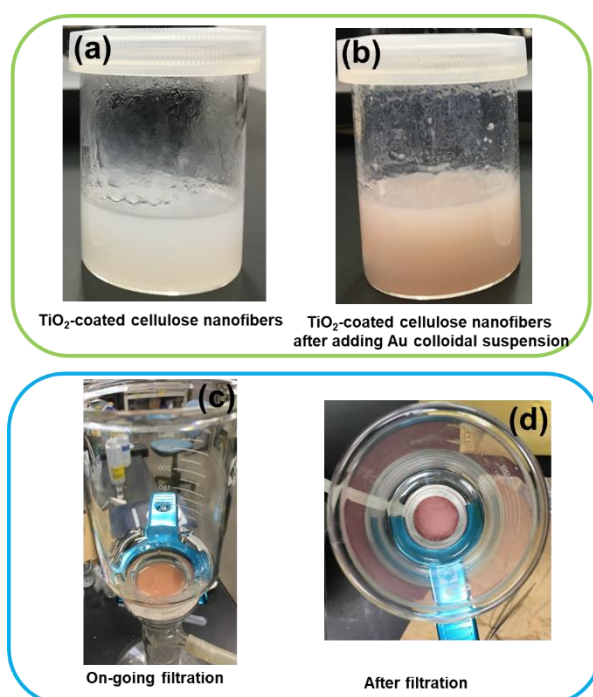


Figure S1. Photographs of (a) TiO₂-coated cellulose nanofibers stocked in aqueous media, (b) after adding Au nanoparticles, (c) on-going filtration to capture Au nanoparticles, and (d) Au nanoparticles captured by the TiO₂-coated cellulose nanofibers after the filtration.

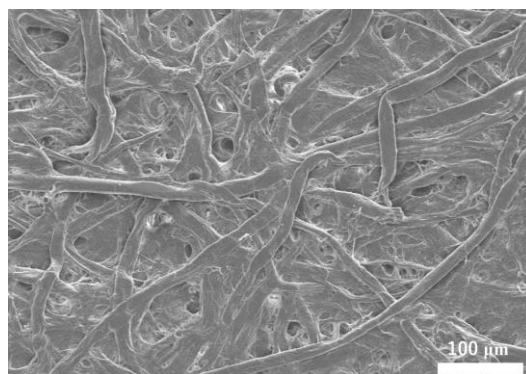


Figure S2. FE-SEM micrograph showing morphology of the cellulose nanofibers without the TiO₂ coating.