Supplementary data

1. Nano-architectures of HMT concentrations varied fabrics

Fig. S1. SEM images of HMT (M): Zn(NO₃)₂ (M) (a) 0.01: 0.05, (b) 0.025: 0.05, (c) 0.05: 0.05, (d) 0.075: 0.05, (e) 0.1: 0.05
2. XRF analysis

Fig. S2. XRF spectra of (a) non-treated fabric, HMT (M): Zn(NO₃)₂ (M) (b) 0.01: 0.05, (c) 0.025: 0.05, (d) 0.05: 0.05, (e) 0.075: 0.05, (f) 0.1: 0.05
3. Water Contact angle measurements

   a. WCA images of HMT concentration varied fabrics

Fig. S3. WCA images of fabrics, HMT concentration varied as (a) 0.01 mol dm$^{-3}$, (b) 0.025 mol dm$^{-3}$, (c) 0.05 mol dm$^{-3}$, (d) 0.075 mol dm$^{-3}$, (e) 0.1 mol dm$^{-3}$
Fig. S4. WCAs of Fabrics stearic acid concentration varied as (a) 0.1 g dm⁻³ (b) 0.25 g dm⁻³ (c) 0.50 g dm⁻³ (d) 0.75 g dm⁻³ (e) 1.0 g dm⁻³
c. WCA of stearic acid dipping time varied fabrics

Fig. S5. WCA of stearic acid dipping time varied fabrics as (a) 1h (b) 3h (c) 5h (d) 7h (e) 9h (f) 11h (g) 13h (h) 15h
d. Water contact angle of pH of the solution and dipping time varied fabrics

Fig. S6. Water contact angles of fabrics with pH (4-5) and dipping time

Fig. S7. Water contact angles of fabrics with pH (5.5-7) and dipping time
4. Mechanical properties

Fig. S8. Tensile stress strain properties of N1, N2 – non-treated fabrics, T1, T2 – treated fabrics.