

## Supporting Information

### Synthesis, characterization, and antibacterial study of chitosan-zinc oxide nanocomposite-coated superhydrophobic cotton fabric

Kranti S. Kachare<sup>a</sup>, Shital S. Shendage<sup>a</sup>, Shirishkumar B. Vhanbatte<sup>b</sup>, Fu-Der Mai<sup>c</sup>, Anil Vithal Ghule<sup>\*a</sup>

<sup>a</sup> Green Nanotechnology Laboratory, Department of Chemistry, Shivaji University, Kolhapur, Maharashtra 416004, India

<sup>b</sup> Textile Physics Laboratory, Dattajirao Kadam Technical Education (DKTE) Society's Textile and Engineering Institute Ichalkaranji, Maharashtra 416115, India

<sup>c</sup> Department of Biochemistry and Molecular Cell Biology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan.

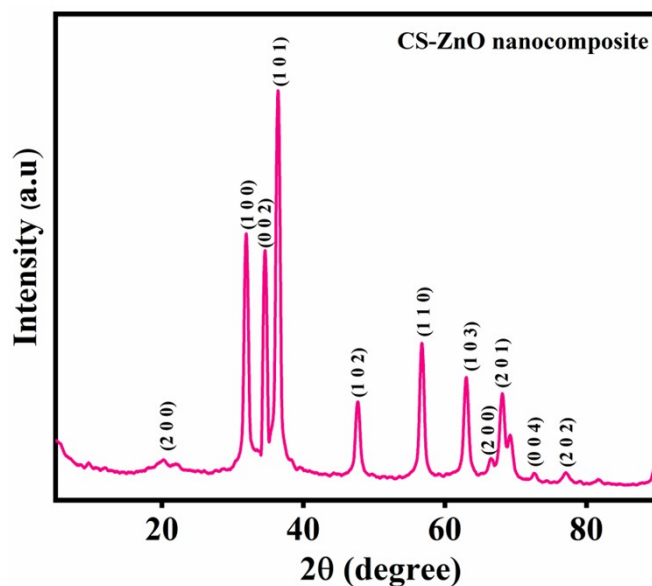
\*Author for correspondence: Anil V. Ghule; [avg\\_chem@unishivaji.ac.in](mailto:avg_chem@unishivaji.ac.in)

#### Supporting Information.

**Fig. S1** XRD pattern of CS-ZnO nanocomposite.

**Fig. S2** Structure of CS-ZnO nanocomposite.

**Fig. S3** TGA thermogram of UCF compared to that of ZnO CF and CS-ZnO CF fabrics. (ZnO loading quantified by comparing the difference in weight loss compared with the UCF).



**Fig. S1** XRD pattern of CS-ZnO nanocomposite.

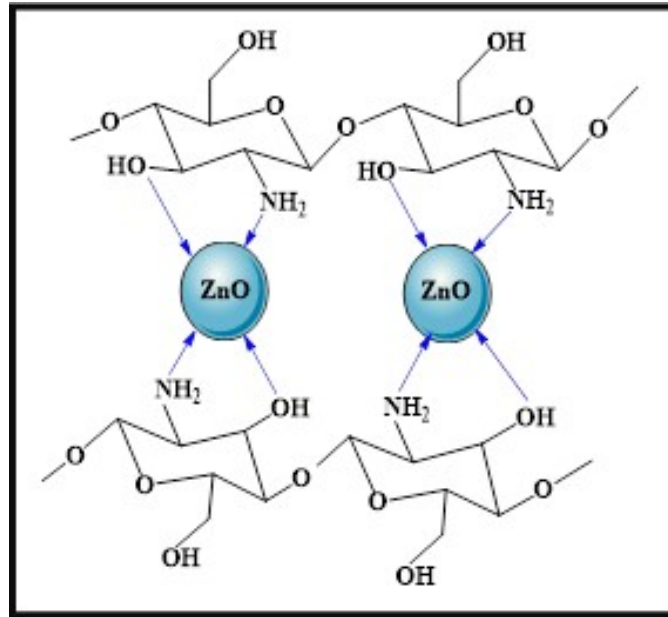


Fig. S2 Structure of CS-ZnO nanocomposite.

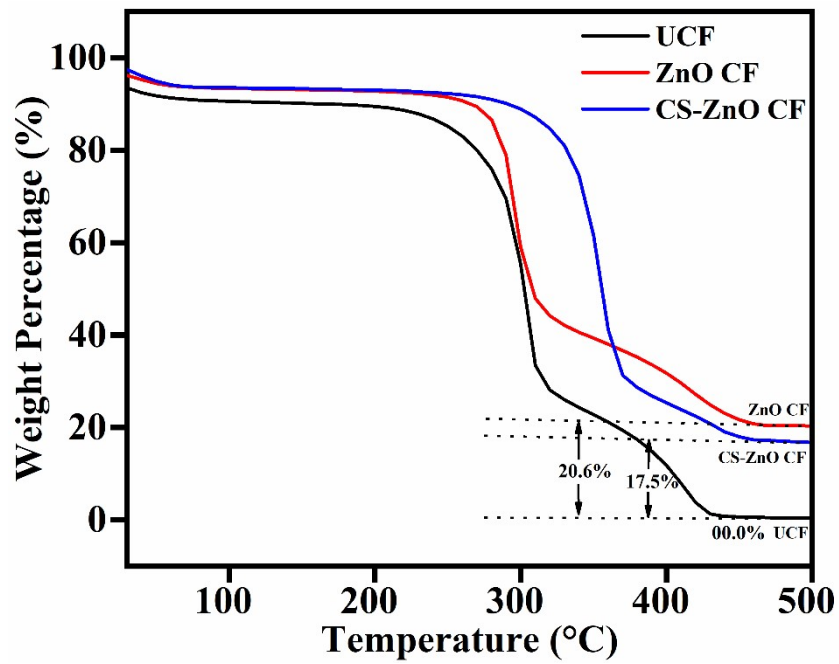


Fig. S3 TGA thermogram of UCF compared to that of ZnO CF and CS-ZnO CF fabrics. (ZnO loading quantified by comparing the difference in weight loss compared with the UCF).