Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information for

Tunable Coffee-Ring Formation of Halloysite Nanotubes by Evaporating Sessile Drops

*Hongzhong Liu, Yao Wang, Yumin Luo, Min Guo, Yue Feng, Mingxian Liu**

Department of Materials Science and Engineering, Jinan University, Guangzhou

510632, China

*Corresponding author. Email: liumx@jnu.edu.cn

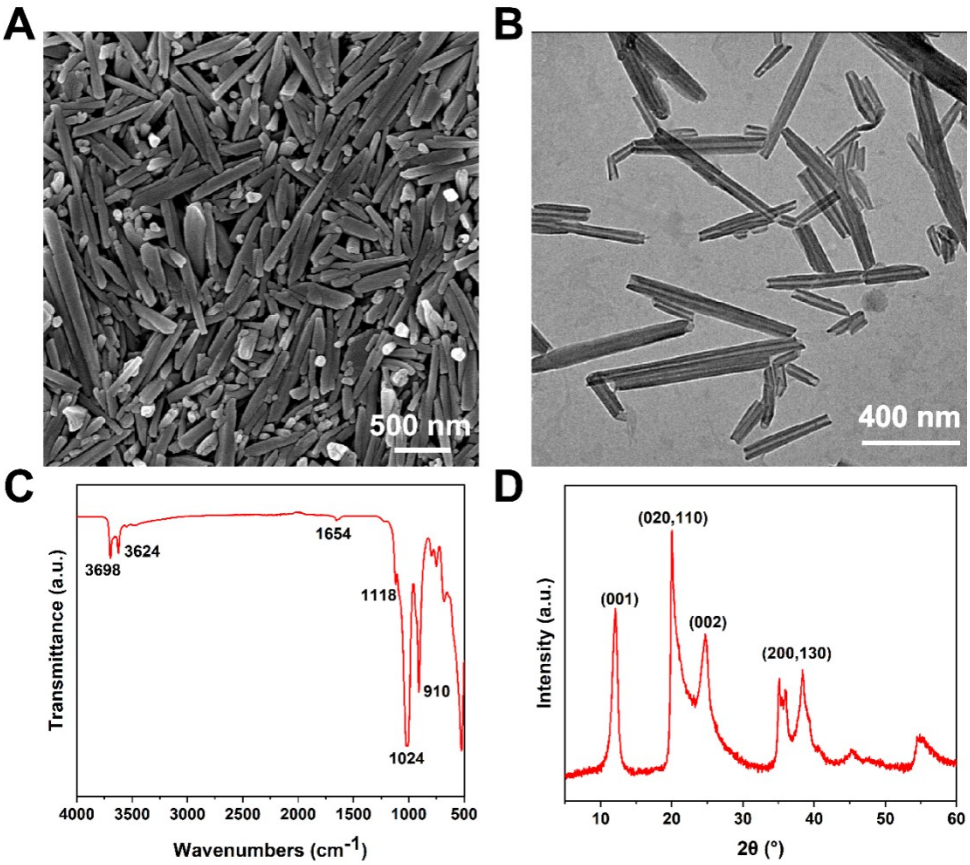

Figure S1. Characterization of halloysite nanotubes: SEM (A), TEM (B), FTIR (C) and XRD (D).

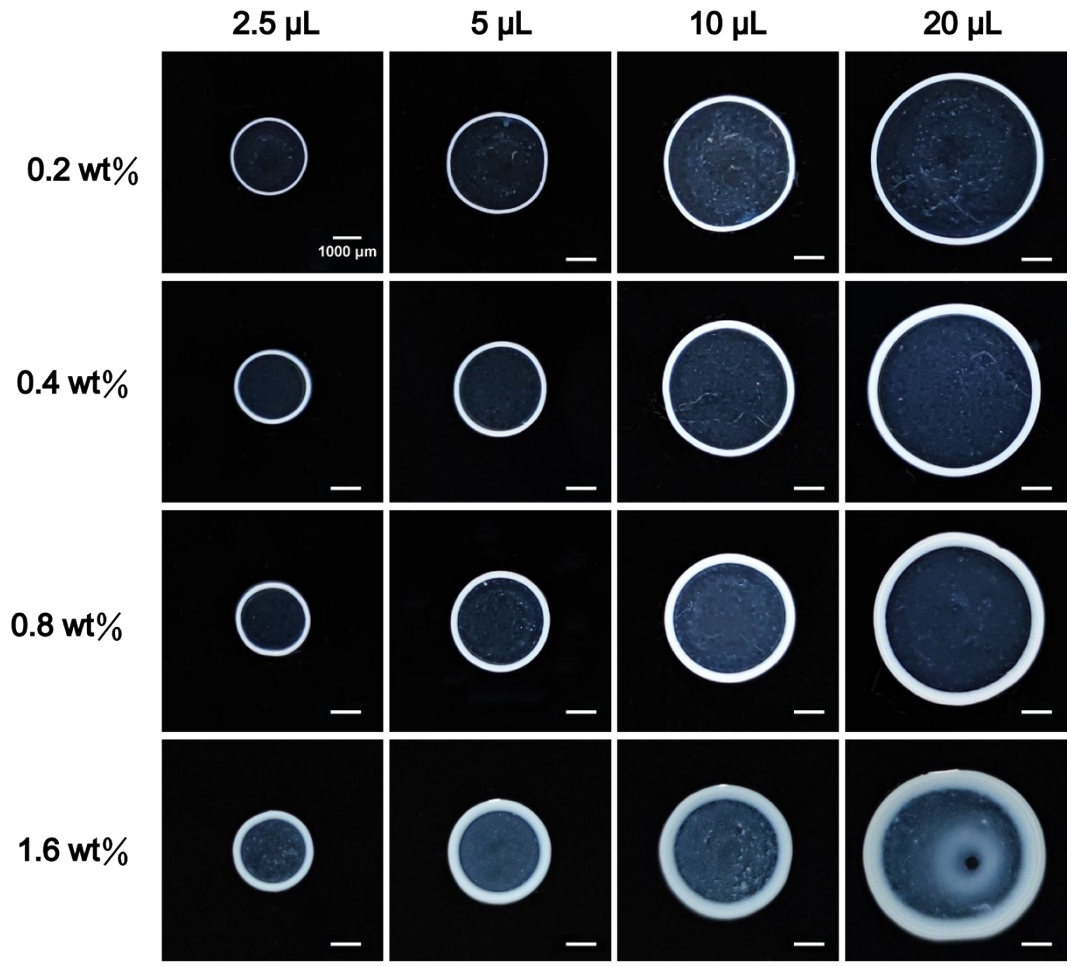

Figure S2. Appearance of HNTs coffee-ring patterns at different concentration and droplet volume.

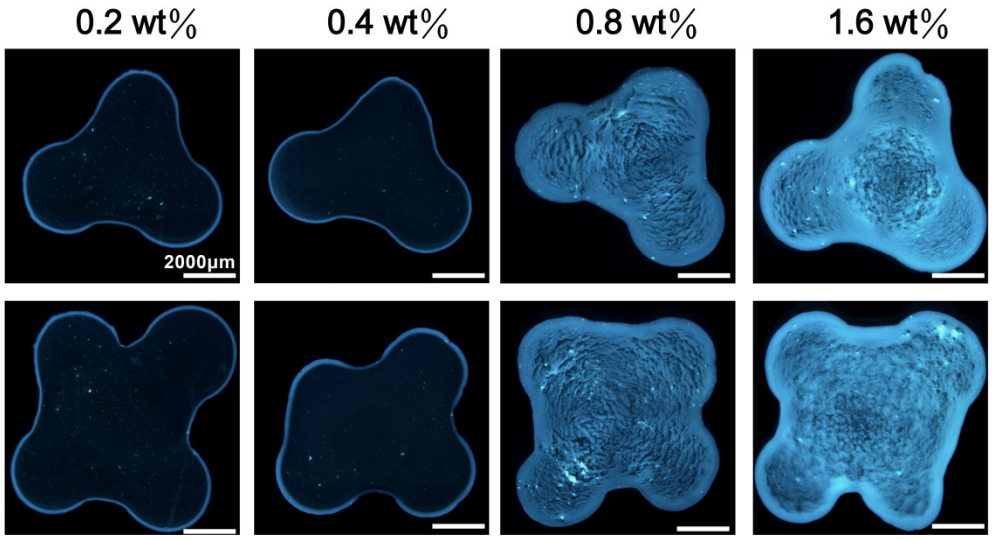

Figure S3. Different patterns formed by the interactions between three (top) and four (bottom) HNTs drops.

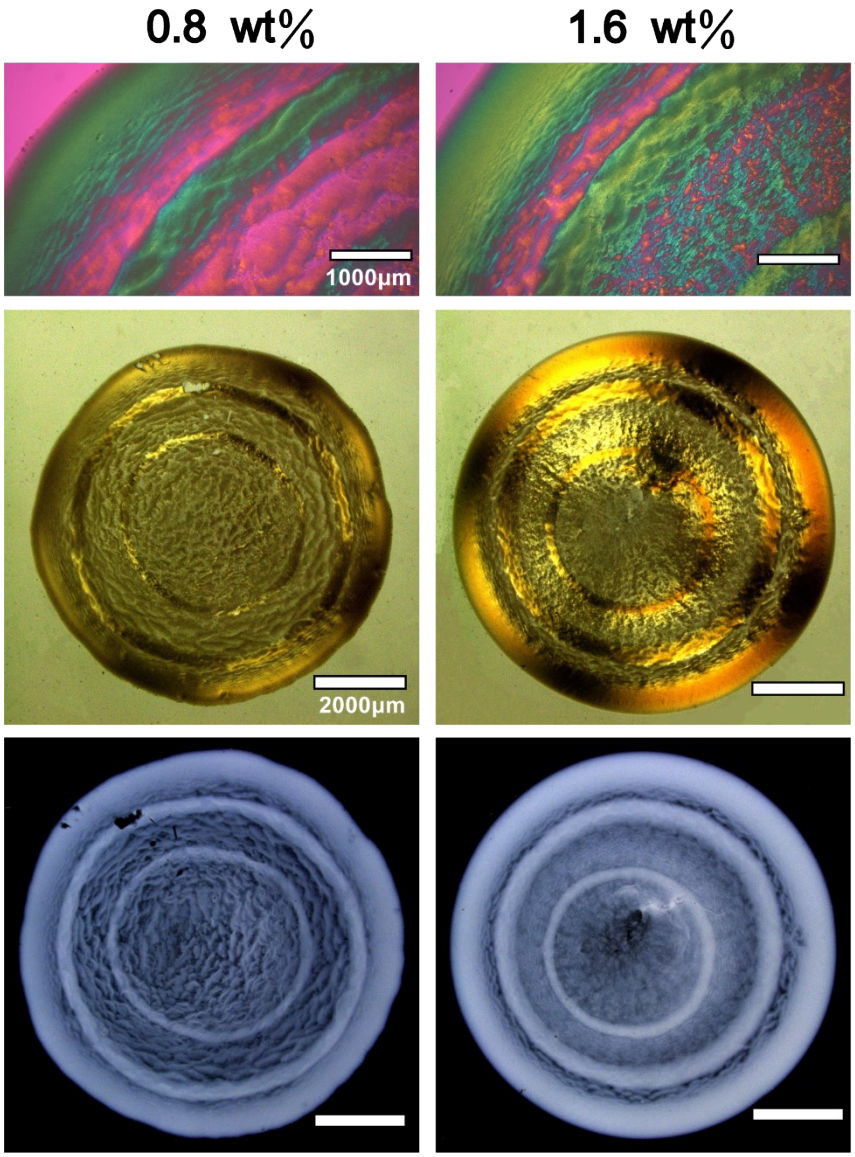

Figure S4. Ring-in-ring patterns formed by the evaporation of smaller HNTs droplet after formation of the bigger HNTs coffee-ring pattern: (A) POM images; (B) stereomicroscope images; (C) appearance photos.

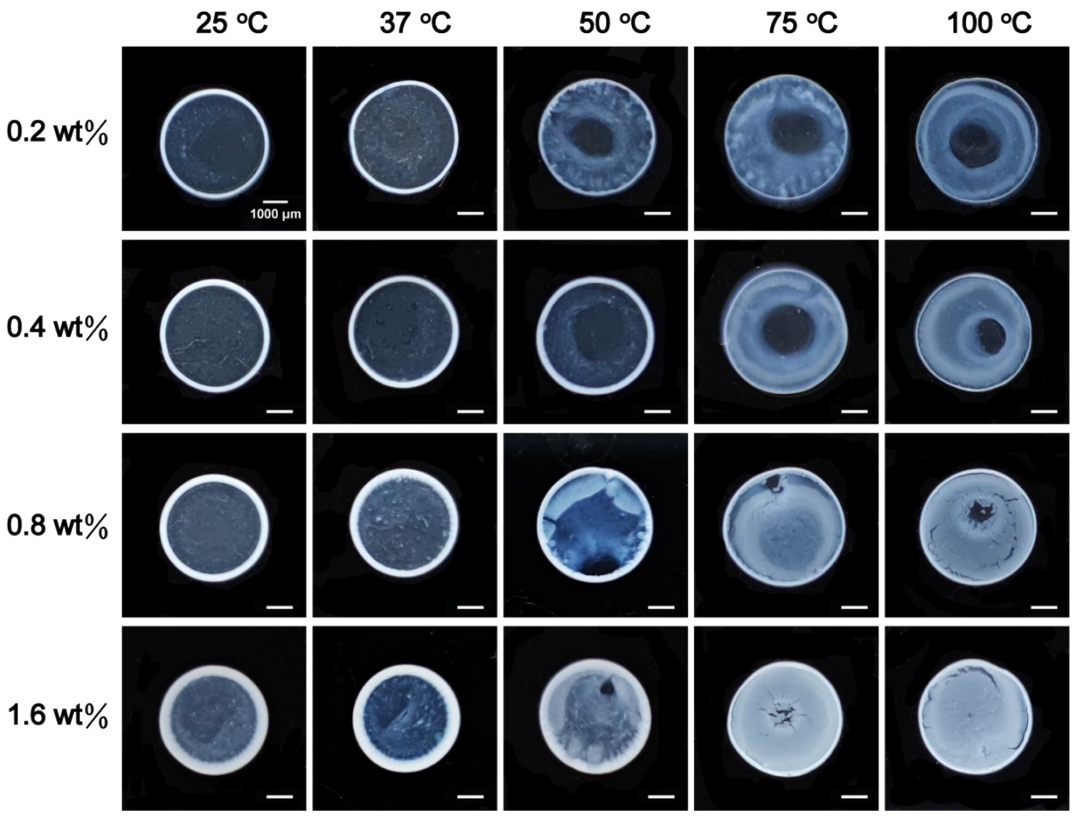

Figure S5. Effect of substrate temperature on the coffee-ring patterns at different concentration.