

Supporting information

Phytochemical Curcumin Co-formulated Silver-Decorated Melanin-like Polydopamine/Mesoporous Silica Composite with Improved Antibacterial and Chemotherapeutic Effect against Drug-resistant Cancer Cells

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Table S1. IC₅₀ values (μg/mL) and combination index (CI) of curcumin, Ag ions and CCM@SBA-15/PDA/Ag on HeLa and A549/TAX cells after 24 h-incubation

	Curcumin	Ag ions	CCM@SBA-15/PDA/Ag	CI
HeLa	10.99 μg/mL	0.643 μg/mL	1.38 μg/mL (containing CCM 0.026 μg/mL and Ag 0.128 μg/mL)	0.201 (<1)
A549/TAX	39.52 μg/mL	1.43 μg/mL	5.05 μg/mL (containing CCM 0.095 μg/mL and Ag 0.469 μg/mL)	0.330 (<1)

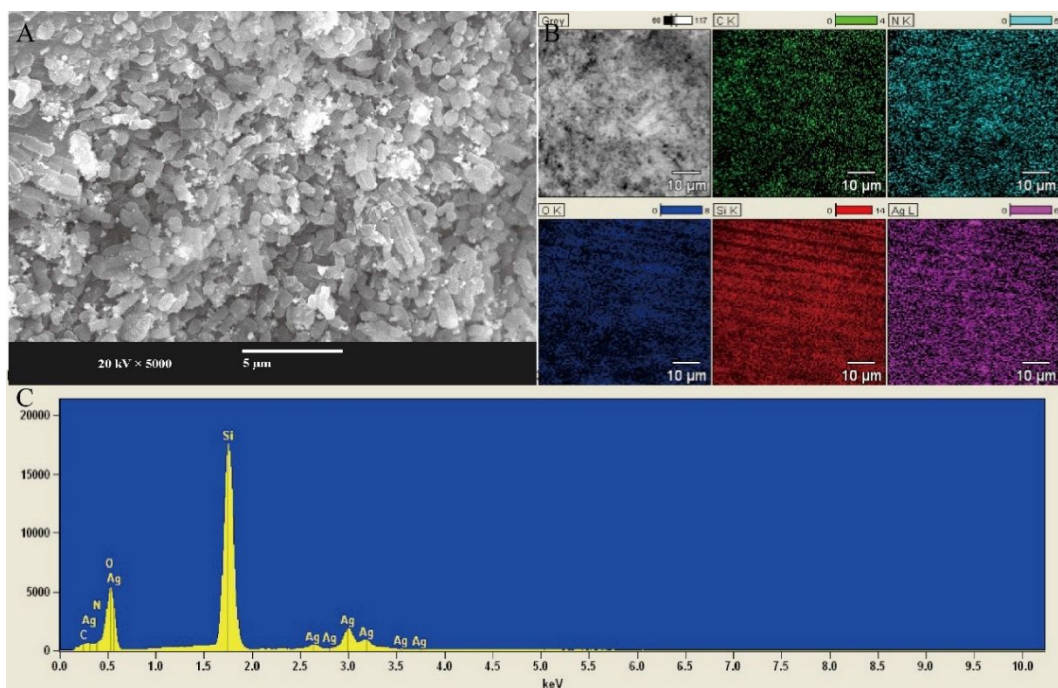


Figure S1. (A) SEM images of CCM@SBA-15/PDA/Ag composite, (B) corresponding EDS mapping results of C, N, O, Si and Ag elements and (C) X-ray energy dispersive spectrum.

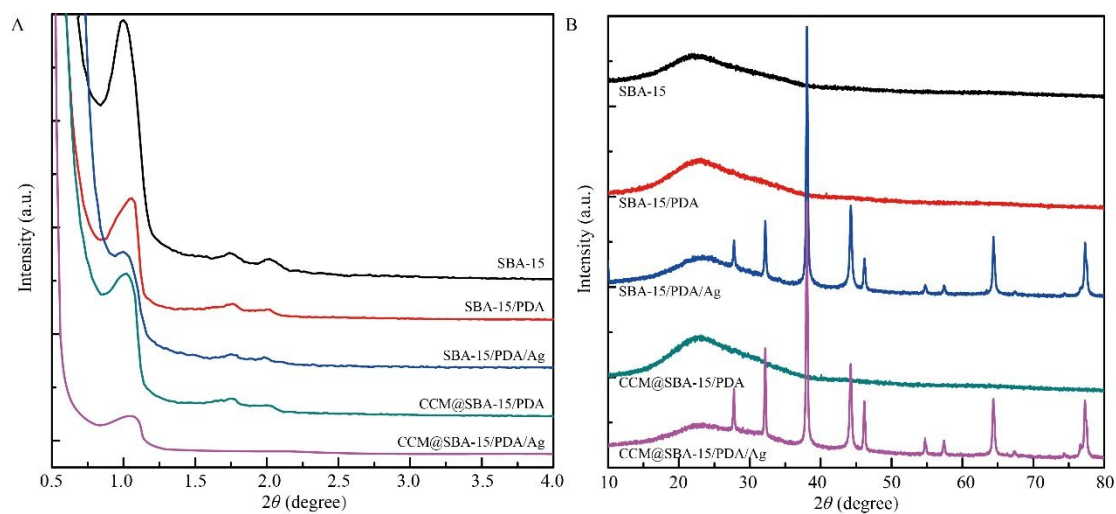


Figure S2. (A) Small and (B) wide angle X-ray diffraction patterns for SBA-15, SBA-15/PDA, SBA-15/PDA/Ag, CCM@SBA-15/PDA and CCM@SBA-15/PDA/Ag powders.

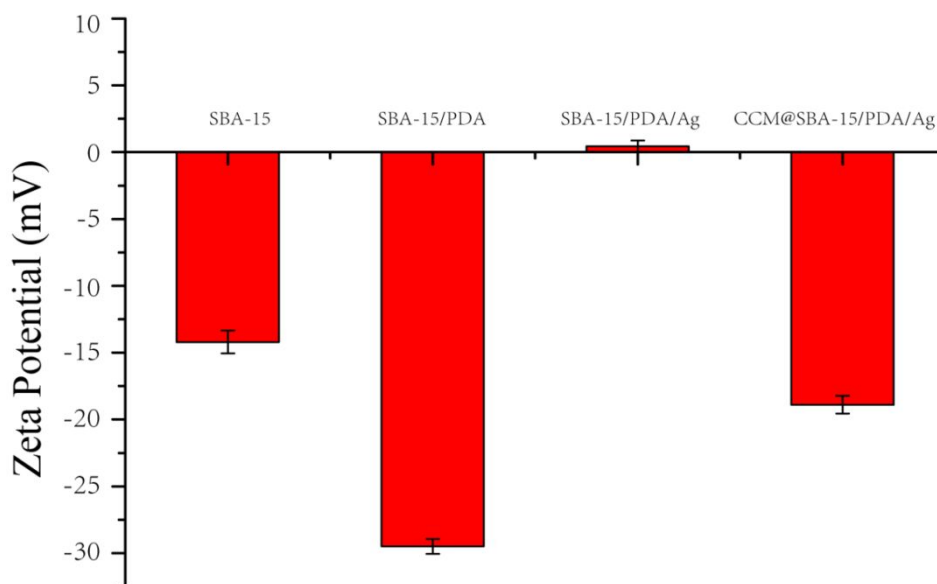


Figure S3. Zeta potentials of SBA-15, SBA-15/PDA, SBA-15/PDA/Ag and CCM@SBA-15/PDA/Ag composites.

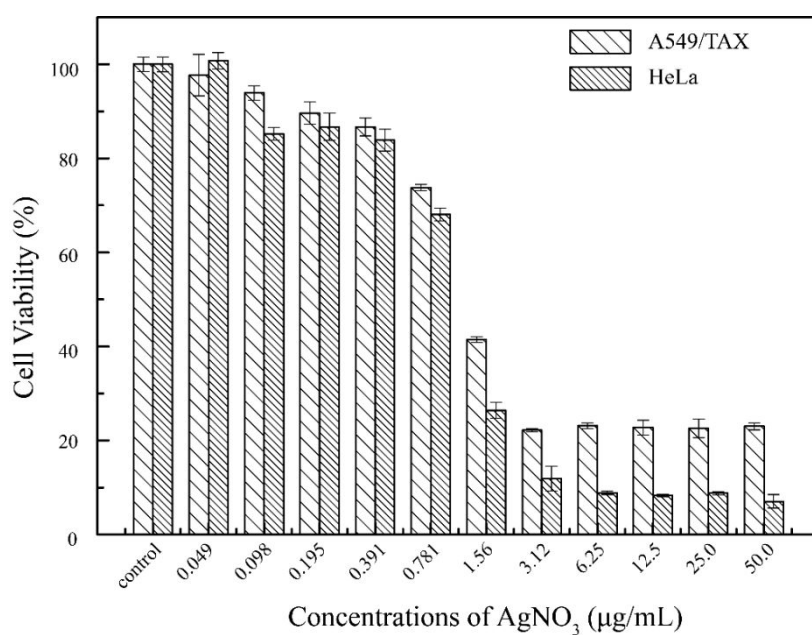


Figure S4. Cell viability of HeLa and A549/TAX cells incubated with different concentrations of AgNO₃. Values were the average of three separate experiments in triplicate. Error bars represented standard deviations ($n=3$).