

Wound coatings collagen-based composite with Ag nanoparticles: synthesis, structure and biological activity

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Supporting Information

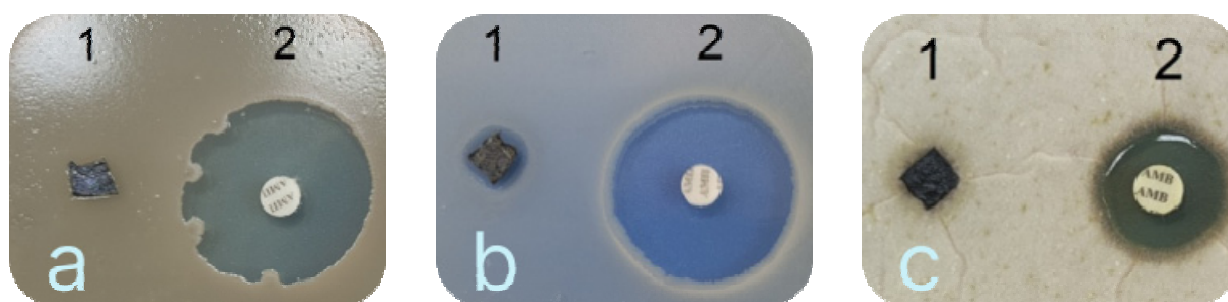


Figure S1. Antimicrobial activity of nanocomposite Col/Ag NPs.

a: *B. subtilis*, 1 — Col/Ag NPs, 2 — ampicillin;

b: *E. coli*, 1 — Col/Ag NPs, 2 — ampicillin;

c: *A. niger*, 1 — Col/Ag NPs, 2 — amphotericin B.

Table S1. Parameters of components in the photoelectron spectra of the collagen and its nanocomposite with silver nanoparticles: E_b – binding energy, W – peak width and I_{rel} – relative intensity

Spectra	Col			Col/Ag NPs			Group
	E_b , eV	W , eV	I_{rel} , %	E_b , eV	W , eV	I_{rel} , %	
C 1s	285.00	1.65	57.98	285.00	1.54	61.21	C-C/C-H
	286.27	1.65	24.17	286.38	1.54	14.78	C-NH/C-O-C/C-OH
	287.97	1.65	14.12	-	-	-	O=C-N
	289.12	1.65	3.73	-	-	-	O=C-OH
	-	-	-	285.94	1.54	7.96	C-NH
	-	-	-	287.93	1.54	11.59	C=O/O-C-O
	-	-	-	288.99	1.54	4.46	C-O-C*=O
O 1s	531.56	1.99	67.91	531.22	1.57	57.03	O=C-N
	532.70	1.99	21.63	-	-	-	O=C-O
	533.76	1.99	10.46	-	-	-	C-O-C
	-	-	-	532.15	1.57	8.72	C-O-C=O*
	-	-	-	533.15	1.57	8.73	C-O*-C=O
	-	-	-	532.17	1.57	25.52	C=O/O-C-O
N 1s	400.15	1.46	68.55	400.67	1.56	13.27	O=C-N
	399.28	1.46	20.91	399.83	1.56	86.73	C-NH ₂
	401.30	1.46	10.54	-	-	-	C-NH ₃ ⁺