

Supplementary Materials

Table I. Composition of each component of AZ material

Material	Mass of Sodium Alginate (g)	Mass of ZnO (g)	Total Mass (g)
AZ-1	0.5013	0.0510	0.5523
AZ-2	0.5023	0.1505	0.6528
AZ-3	0.5017	0.2513	0.7530

Table II. Composition of each component of AZP material

Material	Mass of Sodium Alginate (g)	Mass of ZnO (g)	Mass of PEGDMA (g)	Total Mass (g)
AZP-1	0.5020	0.0250	0.0250	0.5520
AZP-2	0.5012	0.0750	0.0750	0.6512
AZP-3	0.5033	0.1250	0.1250	0.7533

Table III. The results of ZnO (1) and ZnO (2) EDX analysis

Sampel	% Mass		% Atom	
	Zn	O	Zn	O
Standar ZnO	85.4706	14.5294	59.00	41.00
ZnO (1)	77.6800	22.3200	46.00	54.00
ZnO (2)	75.8900	24.1100	43.51	56.49

Table IV. Mass ratio of the AZP material

Sample	% Mass		
	C	O	Zn
Standard	93.27	6.32	0.41
AZP	78.79	20.86	0.36

Table V. The results of antibacterial properties of the AZP Material

Sample	Code	Zone of Inhibition (mm)						
		Control	<i>E. coli</i>	Mean	SD	<i>S. aureus</i>	Mean	SD
Alginate-ZnO (AZ)	1	31.00	12.00	12.00	0.00	14.00	13.50	0.71
		31.00	12.00	12.00	0.00	13.00		
	2	31.00	13.00	13.00	0.00	17.00	16.00	1.41
		31.00	13.00	13.00	0.00	15.00		
	3	31.00	14.00	14.50	0.71	20.00	18.00	2.83
		31.00	15.00	14.50	0.71	16.00		
Alginate-ZnO-PEGDMA (AZP)	1	29.00	12.00	12.50	0.71	15.00	14.50	0.71
		29.00	13.00	12.50	0.71	14.00		
	2	29.00	15.00	14.50	0.71	18.00	16.50	2.12
		29.00	14.00	14.50	0.71	15.00		
	3	29.00	15.00	15.50	0.71	20.00	18.50	2.12
		29.00	16.00	15.50	0.71	17.00		