

Correction

Correction: Bodea et al. Optimization of Moist and Oven-Dried Bacterial Cellulose Production for Functional Properties. *Polymers* 2021, 13, 2088

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Table 2. The properties of bacterial cellulose (BC) of interest for biomedical purposes at different fermentation conditions based on a Box–Behnken design for response surface methodology (RSM).

Independent Variables			Response—Dependent Variables													
X ₁ Harvest (d)	X ₂ Inoculum Volume (mL)	X ₃ BC Type	Y ₁ Thickness * (mm)		Y ₂ Half-Swelling Time (h)		Y ₃ Drug Half-Release Time (h)		Y ₄ Tensile Strength σ (MPa)		Y ₅ Young's Modulus E (MPa)		Y ₆ Fiber Diameter (nm)		Desir	
			exp	pred **	exp	pred **	exp	pred **	exp	pred **	exp	pred **	exp	pred **		
1	6	1	dry	1.68 ± 0.16 bc	1.62	1.25 ± 0.5 bc	1.11	4.95 ± 0.77 de	5.63	7.61 ± 0.21 ab	7.88	128.92 ± 30.37 b	118.19	51.34 ± 6.99 a	50.18	0.40
2	18	1	dry	2.67 ± 0.67 ab	2.81	1.92 ± 0.89 ab	1.89	3.68 ± 0.32 e	5.36	10.34 ± 3.69 a	9.85	139.34 ± 22.35 b	142.08	41.40 ± 3.87 de	42.40	0.48
3	12	3	dry	2.09 ± 0.15 ab	1.93	0.99 ± 0.38 c	1.50	12.78 ± 3.45 a	10.28	10.04 ± 1.90 a	8.86	117.86 ± 28.18 b	133.85	46.00 ± 7.61 bcd	46.33	0.57
4	6	5	dry	1.34 ± 0.15 c	1.05	1.22 ± 0.6 bc	1.11	9.12 ± 1.60 b	8.88	7.08 ± 2.78 abc	7.88	143.99 ± 36.54 a	160.75	47.11 ± 8.77 abc	47.82	0.41
5	18	5	dry	2.28 ± 0.23 ab	2.23	2.12 ± 0.84 a	1.89	8.25 ± 1.61 bcd	8.61	9.22 ± 3.33 a	9.85	209.39 ± 23.85 c	184.64	45.78 ± 6.05 bcd	44.90	0.53
6	6	1	moist	1.68 ± 0.16 bc	1.62	2.47 ± 0.20 a	2.52	5.93 ± 0.58 bcde	3.81	3.02 ± 0.64 d	2.45	16.03 ± 2.97 c	13.26	49.30 ± 4.18 ab	50.54	0.29
7	18	1	moist	2.67 ± 0.67 ab	2.81	2.53 ± 0.28 a	2.54	3.77 ± 1.76 e	3.54	4.64 ± 0.32 bcd	4.42	26.38 ± 15.22 c	37.15	43.67 ± 4.19 cde	42.75	0.41
8	12	3	moist	2.09 ± 0.15 ab	1.93	2.68 ± 0.18 a	2.53	5.97 ± 2.25 bcde	8.46	2.91 ± 0.83 d	3.44	21.59 ± 11.90 c	5.60	45.49 ± 2.64 bcde	44.83	0.54
9	6	5	moist	1.34 ± 0.15 c	1.05	2.49 ± 0.38 a	2.52	5.38 ± 1.95 cde	7.06	2.61 ± 0.38 d	2.45	12.44 ± 0.73 c	9.18	45.12 ± 6.03 bcde	44.48	0.36
10	18	5	moist	2.28 ± 0.23 ab	2.23	2.47 ± 0.08 a	2.54	8.60 ± 2.81 bc	6.79	4.00 ± 0.55 cd	4.42	21.82 ± 2.47 c	33.07	40.60 ± 4.99 e	41.56	0.57
p-value ***			0.992		0.824		0.853		0.897		0.971		0.912			

Where exp—experimental values; pred—values predicted by the RSM model; desir—overall desirability (0 . . . 1); *—the thickness was measured for the entire batch, before drying ($n = 6$); ** the predicted value resulted from the model optimizing the BC properties; *** Mann–Whitney two-tailed test ($\alpha = 0.001$) of the experimental data versus the values predicted by the model optimizing the BC properties. Note: The data are presented as mean \pm SD. Different letters (a–e within the same column show significant differences among the samples (Fisher (LSD), $p < 0.05$).

Table 3. Model parameters (coded coefficients), p values, and goodness-of-fit statistics obtained by response surface methodology (RSM) for each of the 6 response variables (Y_i).

		Y ₁ Thickness (mm)		Y ₂ Half-Swelling Time (h)		Y ₃ Drug Half-Release Time (h)		Y ₄ Tensile Strength σ (MPa)		Y ₅ Young's Modulus E (MPa)		Y ₆ Fiber Diameter (nm)		Desirability	
		coef	p	coef	p	coef	p	coef	p	coef	p	coef	p	coef	p
intercept	b0	1.926 ***	0.000	2.013 ***	0.000	9.370 ***	0.000	6.149 ***	0.000	69.720 ***	0.000	45.580 ***	0.000	0.553 ***	0.000
	b1	0.591 ***	0.002	0.203 *	0.054	-0.135	0.793	0.985 **	0.012	11.940 **	0.025	-2.677 ***	0.000	0.066 ***	0.000
	b2	-0.289 ***	0.000	NA	NA	1.627 ***	0.004	NA	NA	9.620 *	0.066	-0.889 *	0.132	0.0339 ***	0.000
linear	b3 (dry)	NA	NA	-0.514 ***	0.000	0.911 *	0.056	2.711 ***	0.000	64.120 ***	0.000	0.747	0.156	0.0216 ***	0.000
	b12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.215 **	0.044	0.0166 ***	0.000
	b13	NA	NA	0.191 *	0.068	NA	NA	NA	NA	NA	NA	NA	NA	-0.017 ***	0.000
interaction	b23	NA	NA	NA	NA	NA	NA	NA	NA	11.660 **	0.028	0.924 *	0.118	-0.0219 ***	0.000
	b11	NA	NA	NA	NA	-3.16 *	0.010	NA	NA	NA	NA	NA	NA	NA	NA
	b22	NA	NA	NA	NA	NA	NA	NA	NA	17.600 *	0.129	NA	NA	-0.123 ***	0.000
square	b33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R ²	0.70	-	0.61	-	0.47	-	0.73	-	0.90	-	0.59	-	0.995	-
	Lack-of-fit	-	0.954	-	0.638	-	0.455	-	0.886	-	0.440	-	0.590	-	-
The model	-	0.000	-	0.000	-	0.003	-	0.000	-	0.000	-	0.000	-	0.000	0.000

Note: The explanatory variables were coef—coded coefficients, X₁: harvest (d), X₂: inoculum volume (mL), X₃: membrane type. A stepwise selection of terms was used with $\alpha \leq 0.15$ for a hierarchical model; NA—not applicable, the parameter was removed from the model. * significant at $p < 0.15$, ** significant at $p < 0.05$, *** significant at $p < 0.01$.

The manuscript will be updated, and the original will remain online on the article webpage: <https://www.mdpi.com/2073-4360/13/13/2088>.

Reference

1. Bodea, I.M.; Beteg, F.I.; Pop, C.R.; David, A.P.; Dudescu, M.C.; Vilău, C.; Stănilă, A.; Rotar, A.M.; Cătunescu, G.M. Optimization of Moist and Oven-Dried Bacterial Cellulose Production for Functional Properties. *Polymers* **2021**, *13*, 2088. [CrossRef] [PubMed]