

# Additions & Corrections

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## Elvie E. Brown and Marie-Pierre G. Laborie\*: Bioengineering Bacterial Cellulose/Poly(ethylene oxide) Nanocomposites

Page 3077. We recently noticed that the nanofiber diameter measurement for neat bacterial cellulose reported in Table 2 was incorrect. The bacterial cellulose nanofiber has a width of  $10 \pm 2$  nm instead of the  $17 \pm 5$  nm originally reported. As a result of this correction, one main conclusion of the work is changed; namely, the addition of PEO to the HS medium does not alter the size of the nanofibers, contrary to what was previously proposed. The corrected Table 2 is provided.

**Table 2.** Thermal Transitions and Other Morphological Characteristics of PEO and BC in Nanocomposites of Varying BC/PEO Ratios

BC/PEO (w/w)	poly(ethylene oxide)			bacterial cellulose		
	$T_g$ (°C)	$T_m$ (°C)	$X_c$	$I_\beta/I_\alpha$	nanofiber width (nm)	bundles width (nm)
100:0				$1.0 \pm 0.1$	$10 \pm 2$	75–111
59:41	$-50 \pm 6$	$60 \pm 1$	$0.21 \pm 0.07$			
53:47	$-50 \pm 4$	$62 \pm 3$	$0.36 \pm 0.22$		$10 \pm 2$	83–466
33:67	$-48 \pm 1$	$63 \pm 1$	$0.49 \pm 0.05$			
23:77	$-48 \pm 3$	$66 \pm 5$		$1.3 \pm 0.2$	$10 \pm 2$	102–690
15:85	$-51 \pm 2$	$68 \pm 3$	$0.49 \pm 0.06$	$1.3 \pm 0.2$	$10 \pm 2$	121–770
0:100	$-52 \pm 1$	$68 \pm 1$	$0.67 \pm 0.01$			

Additionally, the following corrections are needed in the paper:

1. Page 3074. Abstract: correct to “As the BC/PEO w/w ratio increased from 15:85 to 59:41, the cellulose nanofibers aggregated in larger bundles, indicating that PEO mixed with the cellulose on the nanometer scale”.
2. Pages 3076–3079. Results and Discussion: correct to “When grown in the standard HS medium, the smallest observable cellulose structures that formed from *Acetobacter xylinum* were  $10 \pm 2$  nm in width, within the range of the microfibrils bundles that are generally observed under static conditions.<sup>30,37</sup>”, to “As PEO was added to the HS medium, one change was apparent from the TEM images (Figure 1). The cellulose and PEO aggregated to the point that the nanofibers could only be distinguished in a few locations of the micrographs when grown in a 5% PEO content HS medium”, and to “the morphological changes observed with TEM and AFM corroborate the proposition that by adding PEO into the HS medium during BC synthesis the characteristic aggregates of cellulose/PEO can be tailored although the cellulose nanofiber width remained unaffected”. Also eliminate “The increase in production of the  $I_\beta$  allomorph is consistent with the observed crystallization into finer nanofibers as PEO content increased.<sup>26</sup>”.
3. Page 3080. Conclusions: correct to “As the PEO content increased, the cellulose crystallized into nanofibers of about 10 nm in width that were finely dispersed into PEO”.

Other conclusions and interpretations are not affected by this change. The authors apologize for unintentionally misleading the readers.

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