Additions & Corrections

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Andreia Vasconcelos, Giuliano Freddi, and Artur Cavaco-Paulo*: Biodegradable Materials Based on Silk Fibroin and Keratin

Page 1304. There is a misinterpretation of the biological degradation results (Figures 10 and 11). New experiments were performed, and they should be added to the "Results and Discussion" and "References" sections.

The new results indicate that the difference in degradation rate seems to be related to the crystalline content because it is described in the literature that β-sheet-rich regions are degraded in a slower rate. In a Silk II conformation, the molecular chains are entangled, leading to a more closed structure. In this way, the degradation will be slower.

The amide I band was deconvoluted to determine the fraction of the β-sheets formed during crystallization. In this approach, the amide I band is transformed to yield a fitted self-deconvoluted set of bands from which the secondary structure is determined.[1−3] The assignment of the amide I region bands was determined by reference to the literature.[4] The results from Table 4 indicated higher β-sheet content for the crystallization induced by methanol treatment. The increase in crystallization seems to occur as a result of the random coil/Silk I structure, as can be seen from its decrease from AU to FA to AM. Nevertheless, the formation of a β-type structure intermediate before the final transition from random coil to β-sheet can not be excluded.

Table 4. Results From the Curve Fitting of the Amide I Range of the FT-IR Spectrum of SF Films

	untreated (AU)	formic acid (FA)	methanol (AM)
β-sheet (Silk II)	29.30%	40.14%	58.15%
random coil/Silk I	43.36%	37.58%	19.63%
turns and bends	27.33%	22.27%	22.21%

References and Notes

(1) Dong, A.; Huang, P.; Caughey, W. S. Protein secondary structures in water from second-derivative amide I infrared spectra. *Biochemistry* **1990**, *29* (13), 3303–3308.

(2) Goormaghtigh, Erik V. C. J.-M. R. Secondary structure and dosage of soluble and membrane proteins by attenuated total reflection Fourier-transform infrared spectroscopy on hydrated films. *Eur. J. Biochem.* **1990**, *193* (2), 409–420.

(3) Christiane, J. Insight into protein structure and protein-ligand recognition by Fourier transform infrared spectroscopy. *J. Mol. Recognit.* **2000**, *13* (6), 325–351.

(4) Paola Taddei, P. M. Vibrational infrared conformational studies of model peptides representing the semicrystalline domains of *Bombyx mori* Silk fibroin. *Biopolymers* **2005**, *78* (5), 249–258.

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