

LETTER TO THE EDITOR

Stress-Strain Relation in Collagen Fibers

Dear Sir:

My paper in the Biophysical Journal (Lanir, 1978) contained a criticism of a previous work of Diamant et al. (1972) in which the theory of elastica was used to explain the stress-strain relations in crimped collagen fibers. The experimental data in that article indicated that the length-to-diameter ratio of the collagen "beam" is 0.2. My criticism was that the theory of elastica does not apply under this condition.

Recently, one of the authors (R. G. C. Arridge) informed me that he had discovered a misprint in Table 1 of his paper (Diamant et al., 1972). The observed wavelength was not ~ 200 nm, but rather ~ 200 μ m. With the corrected value the above ratio is 200, for which the theory of elastica is valid. Therefore, I withdraw my criticism.

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REFERENCES

- DIAMANT, J., A. KELLER, E. BAER, M. LITT, and R. G. C. ARRIDGE. 1972. Collagen: ultrastructure and its relation to mechanical properties as a function of aging. *Proc. Roy. Soc. Lond. B. Biol. Sci.* **180**:293-315.
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