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Title:	Optically probing torsional fatigueless and superelastic behavior in spider silks.
Authors:	Kumar, Bhupesh (/jspui/browse?type=author&value=Kumar%2C+Bhupesh) Singh, K.P. (/jspui/browse?type=author&value=Singh%2C+K.P.)
Keywords:	Superelastic Torsional fatigueless Optically probing
Issue Date:	2014
Publisher:	The optical society
Citation:	Proceedings 12th International Conference on Fiber Optics and Photonics, Photonics 2014
Abstract:	We investigate torsion properties of spider silks using optical technique. We find that spider silks are torsionally superelastic and fatigueless in that they can reversibly withstand great torsion strains of over 103 cycles. The fatigueless twist response of draglines is due to reversible molecular deformation. These unique twist responses of draglines could find applications in durable miniature devices
URI:	https://www.osapublishing.org/abstract.cfm?URI=Photonics-2014-M3B.3 (https://www.osapublishing.org/abstract.cfm?URI=Photonics-2014-M3B.3) http://hdl.handle.net/123456789/3051 (http://hdl.handle.net/123456789/3051)
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