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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:	Torsionally Superelastic Spider Silks Torsional
Issue Date:	2014
Publisher:	Optical Society of America
Citation:	International Conference on Fibre Optics and 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#articleReferences (https://www.osapublishing.org/abstract.cfm?uri=Photonics-2014-M3B.3#articleReferences) http://hdl.handle.net/123456789/2740 (http://hdl.handle.net/123456789/2740)
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