

Natural Silk as a Photonics Component: a Study on Its Light Guiding and Nonlinear Optical Properties

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ABSTRACT

Supplementary material to complement the main article of details of the obtained data and some additional results.

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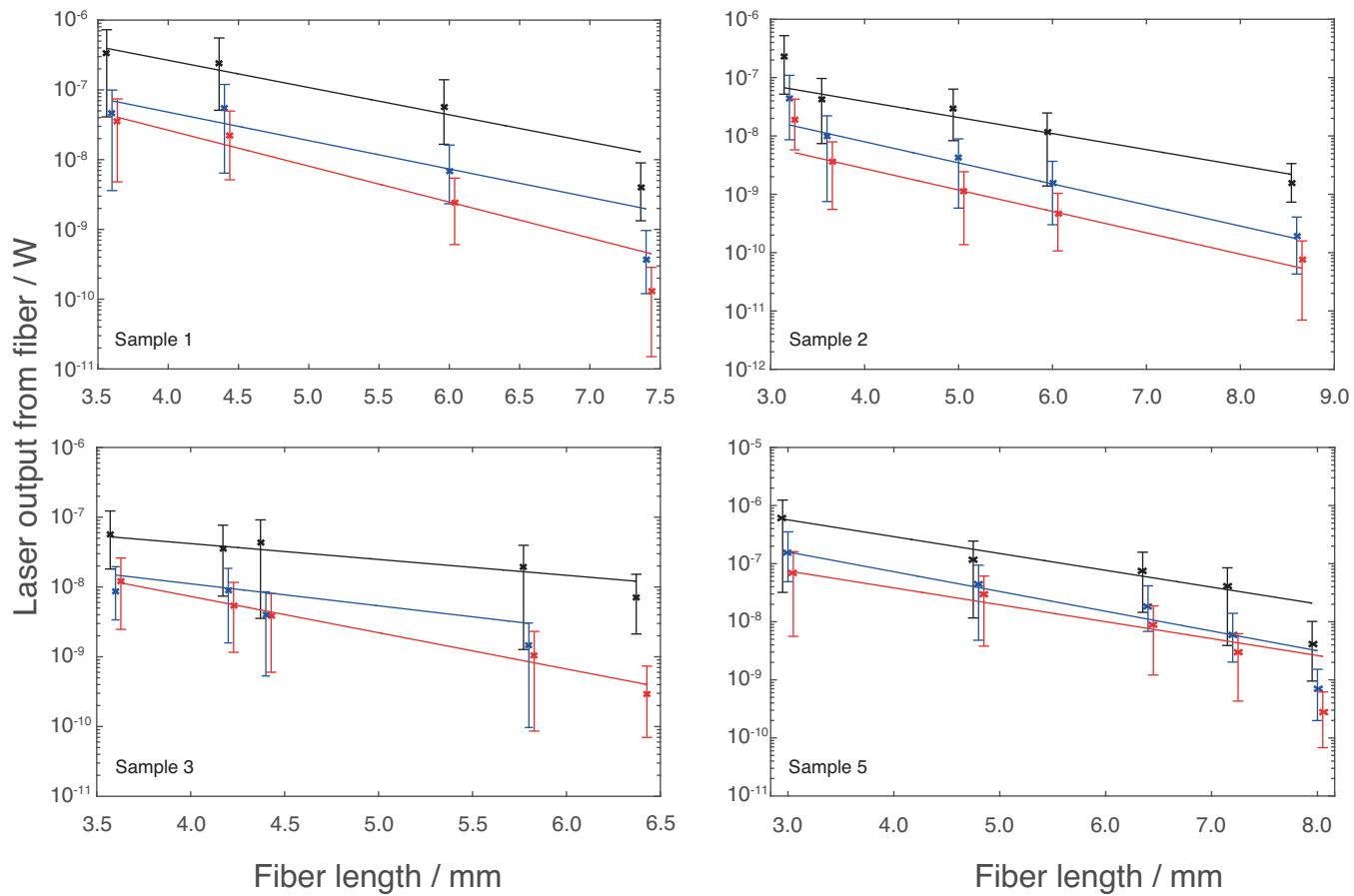


Figure S1. Results of cutback experiments on Sample 1–3 and 5. Again, the error bars indicate 25% and 75% percentiles of the data. Data for 520 nm and 730 nm is slightly offset to right and left, respectively, to improve readability. Lines are fits to the Beer-Lambert law [Equation (1)].

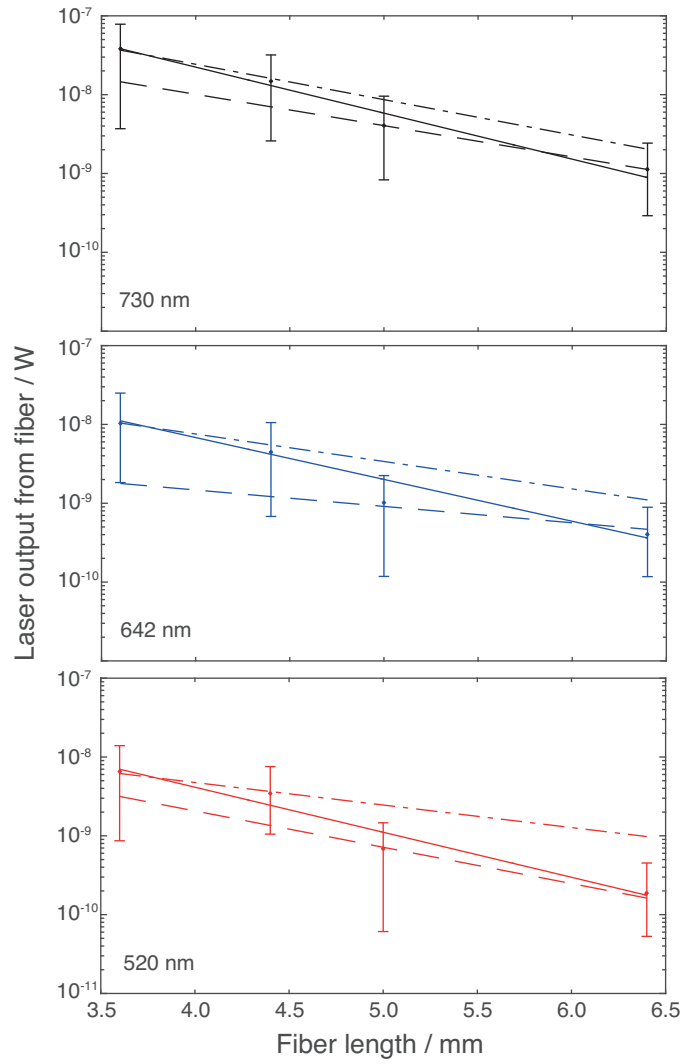


Figure S2. Results of cutback experiments on Sample 4. The error bars indicate 25% and 75% percentiles of the data. Legend: Lines are fits to the Beer-Lambert law [Equation (1)] fitted to; all data points – solid lines, data sets of two shortest fiber lengths – dash-dot lines, and data sets of two longest fiber lengths – dashed lines.

Table S1. Determined loss coefficients in units of dB mm⁻¹ as determined with the cutback method. Numbers in parenthesis indicate the uncertainty in fitted parameters, as given by the numerical fitting routine.

Wavelength	520 nm	642 nm	730 nm
Sample 4	5.71(6)	5.31(8)	5.84(3)
Sample 4 ^a	4.20(5)	4.12(15)	5.58(6)
Sample 4 ^b	4.89(7)	2.84(5)	4.78(11)

a) Data sets corresponding to two longest fiber lengths used for fitting; b) Data sets corresponding to two shortest fiber lengths used for fitting.