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Manuscript title: Mapping nanostructural variations in silk by

secondary electron hyperspectral imaging

Publication status: published on 2017 Advanced materials, 1703510 Authors: Q Wan, K J Abrams, R C Masters, A C S Talari, I U Rehman, F Claeyssens, C Holland, C Rodenburg

Author contribution:

Q Wan has written the first draft of manuscripts, did the cryo-snap of silk fibers, measured the SE spectra and did the imaging of silk materials, as well as the analysis of these data. Q Wan also worked on the supporting BSE imaging and simulation/calculation related to it.

K J Abrams measured the SE spectra of polypropylene (PP) materials and did the imaging of PP material systems.

R C Master did the calibration of the SEM system applied in this paper.

A C S Talari did the Raman microscopy work on the PP materials.

I U Rehman supervised A C S Talari.

C Holland provided the original silk fibers and guided the analysis of silk material.

C Rodenburg and F Claeyssens supervised Q Wan, C Rodenburg and C Holland also worked on the final writing and figures in this manuscript.

Contribution detail of data/figure/sections is labeled accordingly in manuscript included in thesis.

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