

Summary of the research dataset supporting “Co-assembly of Cellulose Nanocrystals and Silk Fibroin into Photonic Cholesteric Films”

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This research dataset is available for free at the University of Cambridge data repository and accessible from this link: <https://doi.org/10.17863/CAM.65066>

General Information:

The dataset is compressed into “.zip” files grouped in folders corresponding to the figures in which they were reported.

The proprietary files (Matlab, MS Excel) may contain additional information regarding the raw data and the data processing, but all the data (reported curves in the main body and Supporting Information) are made available as .txt (or as .csv) files.

The samples SF-CNC-A are labelled with a number from 1 to 12 according to Fig 1b. For instance, the sample #3 is referred to as “sample3” or “label3” in the following names of the provided files.

List of extensions used:

Extensions	Type	Required software	Possible softwares (examples)
.zip	archive file format	/	WinZip, 7-Zip, Unzip
.tif	image	/	ImageJ
.jpg	image	/	ImageJ
.png	image	/	ImageJ
.xlsx	MS Excel	MS Excel	
.xls	MS Excel	MS Excel 97-2004	
.txt	ASCII	/	Text editor
.csv	Comma separated values	/	Text editor, MS Excel
.mat	Matlab data file	Matlab	
.fig	Matlab figure file	Matlab	

Complete list of dataset items:

Folder	Sub-folder	File name	Type
TOC		TOC.png	.png
Figure_1		Figure1.png	.png
	Fig_1a	Fig_1a_sample1.jpg	.jpg
	Fig_1a	Fig_1a_sample2.jpg	.jpg
	Fig_1a	Fig_1a_sample3.jpg	.jpg
	Fig_1a	Fig_1a_sample8.jpg	.jpg

Folder	Sub-folder	File name	Type
Figure_2		Figure2.png	.png
	Fig_2a	Fig_2a_1_sample3.jpg	.jpg
	Fig_2a	Fig_2a_2_sample4.jpg	.jpg
	Fig_2a	Fig_2a_3_sample5.jpg	.jpg
	Fig_2a	Fig_2a_4_sample6.jpg	.jpg
	Fig_2a	Fig_2a_5_sample8.jpg	.jpg
	Fig_2b	Fig_2b_1_label3-20X-pos1-lcp.png	.png
	Fig_2b	Fig_2b_1_label3-20X-pos1-rcp.png	.png
	Fig_2b	Fig_2b_2_label4-20X-pos1-lcp.png	.png
	Fig_2b	Fig_2b_2_label4-20X-pos1-rcp.png	.png
	Fig_2b	Fig_2b_3_label5-20X-pos1-lcp.png	.png
	Fig_2b	Fig_2b_3_label5-20X-pos1-rcp.png	.png
	Fig_2b	Fig_2b_4_label6-20X-pos1-lcp.png	.png
	Fig_2b	Fig_2b_4_label6-20X-pos1-rcp.png	.png
	Fig_2b	Fig_2b_5_label7-20X-pos1-lcp.png	.png
	Fig_2b	Fig_2b_5_label7-20X-pos1-rcp.png	.png
	Fig_2b	Fig_2b_6_label8-20X-pos1-lcp.png	.png
	Fig_2b	Fig_2b_6_label8-20X-pos1-rcp.png	.png
	Fig_2b	scale-20X.png	.png
	Fig_2c	scan.mat	.mat
	Fig_2c	pH-series.fig	.fig
	Fig_2c	label3_lcp.txt	.txt
	Fig_2c	label3_rcp.txt	.txt
	Fig_2c	label4_lcp.txt	.txt
	Fig_2c	label4_rcp.txt	.txt
	Fig_2c	label5_lcp.txt	.txt
	Fig_2c	label5_rcp.txt	.txt
	Fig_2c	label6_lcp.txt	.txt
	Fig_2c	label6_rcp.txt	.txt
	Fig_2c	label8_lcp.txt	.txt
	Fig_2c	label8_rcp.txt	.txt
Figure_3		Figure3.png	.png
	Fig_3a	Fig_3a_1_label2_0%_pH6.50.jpg	.jpg
	Fig_3a	Fig_3a_2_label10_2%_pH6.50.jpg	.jpg
	Fig_3a	Fig_3a_3_label11_5%_pH6.50.jpg	.jpg
	Fig_3a	Fig_3a_4_label8_10%_pH6.50.jpg	.jpg
	Fig_3a	Fig_3a_5_label12_20%_pH6.50.jpg	.jpg
	Fig_3a	Fig_3a_6_label9_100%_pH6.50.jpg	.jpg
	Fig_3a	label3_10%_pH3.96.jpg	.jpg
	Fig_3a	label4_10%_pH4.15.jpg	.jpg
	Fig_3a	label5_10%_pH4.30.jpg	.jpg
	Fig_3a	label6_10%_pH4.50.jpg	.jpg
	Fig_3b	Fig_3b_1_label2-20X-pos3-lcp.png	.png
	Fig_3b	Fig_3b_1_label2-20X-pos3-rcp.png	.png
	Fig_3b	Fig_3b_2_label10-20X-pos2-lcp.png	.png
	Fig_3b	Fig_3b_2_label10-20X-pos2-rcp.png	.png
	Fig_3b	Fig_3b_3_label11-20X-pos1-lcp.png	.png
	Fig_3b	Fig_3b_3_label11-20X-pos1-rcp.png	.png
	Fig_3b	Fig_3b_4_label8-20X-pos5-lcp.png	.png

Folder	Sub-folder	File name	Type
	Fig_3b	Fig_3b_4_label8-20X-pos5-rcp.png	.png
	Fig_3b	Fig_3b_5_label12-20X-pos1-lcp.png	.png
	Fig_3b	Fig_3b_5_label12-20X-pos1-rcp.png	.png
	Fig_3b	Fig_3b_6_label9-20X-pos3-lcp.png	.png
	Fig_3b	Fig_3b_6_label9-20X-pos3-rcp.png	.png
	Fig_3b	scale-20X.png	.png
	Fig_3c	scan.mat	.mat
	Fig_3c	ratio-series.fig	.fig
	Fig_3c	fig_3c_curve1_label2_lcp.txt	.txt
	Fig_3c	fig_3c_curve1_label2_rcp.txt	.txt
	Fig_3c	fig_3c_curve2_label10_lcp.txt	.txt
	Fig_3c	fig_3c_curve2_label10_rcp.txt	.txt
	Fig_3c	fig_3c_curve3_label11_lcp.txt	.txt
	Fig_3c	fig_3c_curve3_label11_rcp.txt	.txt
	Fig_3c	fig_3c_curve4_label8_lcp.txt	.txt
	Fig_3c	fig_3c_curve4_label8_rcp.txt	.txt
	Fig_3c	fig_3c_curve5_label12_lcp.txt	.txt
	Fig_3c	fig_3c_curve5_label12_rcp.txt	.txt
	Fig_3c	fig_3c_curve6_label9_lcp.txt	.txt
	Fig_3c	fig_3c_curve6_label9_rcp.txt	.txt
Figure_4		Figure4.png	.png
	Fig_4a	Fig_4a_label2.tif	.tif
	Fig_4a	Fig_4a_label2_inset.tif	.tif
	Fig_4b	Fig_4b_label3.tif	.tif
	Fig_4b	Fig_4b_label3_inset.tif	.tif
	Fig_4c	Fig_4b_label8.tif	.tif
	Fig_4c	Fig_4b_label8_inset.tif	.tif
Figure_5		Figure5.png	.png
		figure_5_a.txt	.txt
		figure_5_b.txt	.txt
Figure_6		Figure6.png	.png
		Fig_6a_suspB_X0.jpg	.jpg
		Fig_6b_suspB_X2.jpg	.jpg
		Fig_6c_suspB_X5.jpg	.jpg
		Fig_6d_suspB_X10.jpg	.jpg
		Fig_6e_suspB_X15.jpg	.jpg
		Fig_6f_suspB_X20.jpg	.jpg
		Fig_6g_suspB_X25.jpg	.jpg
		Fig_6h_suspB_X100.jpg	.jpg
Figure_S01		FigureS1.png	.png
		Fig_S1_1_label3-20X-pos1-lcp.png	.png
		Fig_S1_1_label3-20X-pos1-rcp.png	.png
		Fig_S1_2_label4-20X-pos1-lcp.png	.png
		Fig_S1_2_label4-20X-pos1-rcp.png	.png
		Fig_S1_3_label5-20X-pos1-lcp.png	.png
		Fig_S1_3_label5-20X-pos1-rcp.png	.png
		Fig_S1_4_label6-20X-pos4-lcp.png	.png
		Fig_S1_4_label6-20X-pos4-rcp.png	.png
		Fig_S1_5_label7-20X-pos2-lcp.png	.png

Folder	Sub-folder	File name	Type
		Fig_S1_5_label7-20X-pos2-rcp.png	.png
		Fig_S1_6_label8-20X-pos4-lcp.png	.png
		Fig_S1_6_label8-20X-pos4-rcp.png	.png
		scale-20X.png	.png
Figure_S02		FigureS2.png	.png
		Fig_S2_1_label3-20X-pos1-lcp-df.png	.png
		Fig_S2_1_label3-20X-pos1-rcp-df.png	.png
		Fig_S2_2_label4-20X-pos1-lcp-df.png	.png
		Fig_S2_2_label4-20X-pos1-rcp-df.png	.png
		Fig_S2_3_label5-20X-pos1-lcp-df.png	.png
		Fig_S2_3_label5-20X-pos1-rcp-df.png	.png
		Fig_S2_4_label6-20X-pos4-lcp-df.png	.png
		Fig_S2_4_label6-20X-pos4-rcp-df.png	.png
		Fig_S2_5_label7-20X-pos2-lcp-df.png	.png
		Fig_S2_5_label7-20X-pos2-rcp-df.png	.png
		Fig_S2_6_label8-20X-pos4-lcp-df.png	.png
		Fig_S2_6_label8-20X-pos4-rcp-df.png	.png
		scale-20X.png	.png
Figure_S03		FigureS3.png	.png
		Fig_S3_1_label2-20X-pos2-lcp.png	.png
		Fig_S3_1_label2-20X-pos2-rcp.png	.png
		Fig_S3_2_label10-20X-pos1-lcp.png	.png
		Fig_S3_2_label10-20X-pos1-rcp.png	.png
		Fig_S3_3_label11-20X-pos1-lcp.png	.png
		Fig_S3_3_label11-20X-pos1-rcp.png	.png
		Fig_S3_4_label8-20X-pos4-lcp.png	.png
		Fig_S3_4_label8-20X-pos4-rcp.png	.png
		Fig_S3_5_label12-20X-pos1-lcp.png	.png
		Fig_S3_5_label12-20X-pos1-rcp.png	.png
		Fig_S3_6_label9-20X-pos3-lcp.png	.png
		Fig_S3_6_label9-20X-pos3-rcp.png	.png
		scale-20X.png	.png
Figure_S04		FigureS4.png	.png
		Fig_S4_1_label2-20X-pos1-lcp-df.png	.png
		Fig_S4_1_label2-20X-pos1-rcp-df.png	.png
		Fig_S4_2_label10-20X-pos1-lcp-df.png	.png
		Fig_S4_2_label10-20X-pos1-rcp-df.png	.png
		Fig_S4_3_label11-20X-pos1-lcp-df.png	.png
		Fig_S4_3_label11-20X-pos1-rcp-df.png	.png
		Fig_S4_4_label8-20X-pos1-lcp-df.png	.png
		Fig_S4_4_label8-20X-pos1-rcp-df.png	.png
		Fig_S4_5_label12-20X-pos1-lcp-df.png	.png
		Fig_S4_5_label12-20X-pos1-rcp-df.png	.png
		Fig_S4_6_label9-20X-pos2-lcp-df.png	.png
		Fig_S4_6_label9-20X-pos2-rcp-df.png	.png
		scale-20X.png	.png
Figure_S05		FigureS5.png	.png
		Fig_S5a_label2_SFtoCNC_0to100_pH6dot5_pos1.tif	.tif
		Fig_S5b_label2_SFtoCNC_0to100_pH6dot5_pos2.tif	.tif

Folder	Sub-folder	File name	Type
		Fig_S5c_label10_SFtoCNC_5to95_pH6dot5_pos1.tif	.tif
		Fig_S5d_label10_SFtoCNC_5to95_pH6dot5.tif_pos2.tif	.tif
		Fig_S5e_label8_SFtoCNC_10to90_pH6dot5_pos1.tif	.tif
		Fig_S5f_label8_SFtoCNC_10to90_pH6dot5_pos2.tif	.tif
Figure_S06		FigureS6.png	.png
		Figure_S6.txt	.txt
Figure_S07		FigureS7a.png	.png
		Figure_S7_a.txt	.txt
		Figure_S7_b.txt	.txt
Figure_S08		FigureS8.png	.png
		Fig_S8_curve1_SFtoCNC_0to100.txt	.txt
		Fig_S8_curve2_SFtoCNC_10to90.txt	.txt
		Fig_S8_curve3_SFtoCNC_100to0.txt	.txt
Figure_S09		FigureS9.png	.png
		susp_A_before_MBIER.xlsx	.xlsx
		susp_A_before_MBIER.xls	.xls
		susp_A_before_MBIER.csv	.csv
		susp_A_before_MBIER.txt	.txt
		susp_A.xlsx	.xlsx
		susp_A.xls	.xls
		susp_A.csv	.csv
		susp_A.txt	.txt
		susp_B.xlsx	.xlsx
		susp_B.xls	.xls
		susp_B.csv	.csv
		susp_B.txt	.txt
Figure_S10		FigureS10.png	.png
		FigureS10.xlsx	.xlsx
		FigureS10.xls	.xls
		FigureS10.csv	.csv
		FigureS10.txt	.txt
Figure_S11		FigureS11.png	.png
		Fig_S11.xlsx	.xlsx
		Fig_S11.xls	.xls
		Fig_S11.csv	.csv
		Fig_S11.txt	.txt
		All_data_tensile.xlsx	.xlsx
		All_data_tensile.xls	.xls
		silkCNC_thickness_width.xlsx	.xlsx
		silkCNC_thickness_width.xls	.xls
		silkCNC_thickness_width.csv	.csv

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