

## Summary of the Research data supporting:

### Retrieving the co-assembly pathway of composite cellulose nanocrystal photonic films from their angular optical response

Bruno Frka-Petesic,\* Joel A. Kelly, Gianni Jacucci, Giulia Guidetti, Gen Kamita, Nathan P. Crossette, Wadood Y. Hamad, Mark J. MacLachlan and Silvia Vignolini\*

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Note: While some files are specific to MATLAB® (.fig, .mat) or MS Excel® (.xls, .xlsx), we made available exported dataset in tab delimited text files (.txt) for all of them.

#### Figure 1.

##### Figure 1a

Figure\_1a\_0-100: Images LCP and RCP (.png)

JK266-1-20xepiapo-pos4-lcp.png

JK266-1-20xepiapo-pos4-rcp.png

Figure\_1a\_49-51: Images LCP and RCP (.png)

JK266-2C-20xepiapo-pos4-lcp.png

JK266-2C-20xepiapo-pos4-rcp.png

Figure\_1a\_60-40: Images LCP and RCP (.png)

JK266-4C-20xepiapo-pos4-lcp.png

JK266-4C-20xepiapo-pos4-rcp.png

Figure\_1a\_71-29: Images LCP and RCP (.png)

JK266-5C-20xepiapo-pos3-lcp.png

JK266-5C-20xepiapo-pos3-rcp.png

Figure\_1a\_76\_24: Images LCP and RCP (.png)

JK266-6C-20xepiapo-pos2-lcp.png

JK266-6C-20xepiapo-pos2-rcp.png

Scalebar (.png)

scalebar-ECEPIAPOCRHOMAT20x\_smallgap=10µm.png

Figure\_1b\_spectra: raw and smoothed curve datapoints (.txt)

Sample 1: Figure\_1b\_spectrum1.txt

Sample 2: Figure\_1b\_spectrum2.txt

Sample 3: Figure\_1b\_spectrum3.txt

Sample 4: Figure\_1b\_spectrum4.txt

Sample 5: Figure\_1b\_spectrum5.txt

All samples: spectra\_smoothed.txt

#### Figure 2.

##### Figure 2a

Figures images for all the 5 samples in Matlab (.fig)

Sample 1: Fig2\_log\_fit.fig

Sample 2: Fig3\_log\_fit.fig

Sample 3: Fig5\_log\_fit.fig

Sample 4: Fig6\_log\_fit.fig

Sample 5: Fig7\_log\_fit.fig

Dataset for all samples, including the 5 discussed in the article in Matlab structure format (.mat)

scan.mat  
READ\_ME file explaining which of the spectra correspond to the 5 samples of the article (.txt)  
scan.mat\_in\_txt\_format:  
Exported dataset in a matrix form for the 5 samples (.txt)  
Sample 1: smat\_2.txt  
Sample 2: smat\_3.txt  
Sample 3: smat\_5.txt  
Sample 4: smat\_6.txt  
Sample 5: smat\_7.txt  
Wavelength as axis values (.txt)  
Sample 1: wavelength\_2.txt  
Sample 2: wavelength\_3.txt  
Sample 3: wavelength\_5.txt  
Sample 4: wavelength\_6.txt  
Sample 5: wavelength\_7.txt  
Angle theta\_out as axis values (.txt)  
Sample 1: theta-out\_2.txt  
Sample 2: theta-out\_3.txt  
Sample 3: theta-out\_5.txt  
Sample 4: theta-out\_6.txt  
Sample 5: theta-out\_7.txt

Figure 2c

Figure image in Matlab (.fig)  
fig\_out2.fig  
Data for all 5 samples (c1 to c5) exported with columns defined as:  
(c1\_λ, c1\_θ<sub>out</sub>, c2\_λ, c2\_θ<sub>out</sub>, c3\_λ, c3\_θ<sub>out</sub>, c4\_λ, c4\_θ<sub>out</sub>, c5\_λ, c5\_θ<sub>out</sub>),  
goni data: Fig2c\_data\_xy(x5).txt  
goni fit: Fig2c\_fit\_xy(x5).txt

### Figure S1.

Uncropped SEM image:  
JL2664C\_ii30.tif

### Figure S2.

Excel sheet joined for Figures S2-3 (.xls, .xlsx):  
Figure\_S3\_fit\_tilt\_vs\_pitch.xls  
Figure\_S3\_fit\_tilt\_vs\_pitch.xlsx  
Same data in (tab delimited text):  
Figure\_S2a\_region1.txt  
Figure\_S2b\_region2.txt  
Figure\_S2c\_region3.txt  
Figure\_S2d\_region4.txt  
Figure\_S2e\_region5.txt  
Figure\_S2f\_region6.txt

### Figure S3.

Excel sheet joined for Figures S2-3: (see above in **Figure S2**)  
Data points (.txt):  
data: Figure\_S3\_data\_tilt\_vs\_pitch.txt  
fit: Figure\_S3\_fit\_tilt\_vs\_pitch.txt