Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Electronic Supplementary Information for:

Transparent nanocellulose metamaterial enables controlled optical diffusion and radiative cooling

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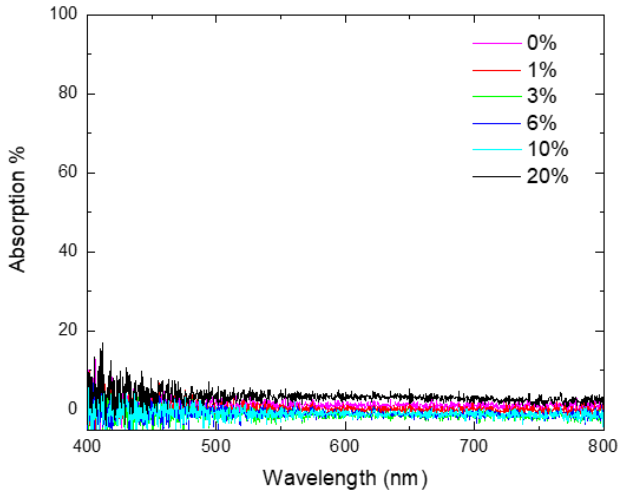

Figure S1. Effect of SiO_2 microparticle wt% on visible absorption. Absorption spectra of samples with different wt% of microparticles (4.6 µm in diameter). The samples were sandwiched between two glass slides and placed inside an integrating sphere.

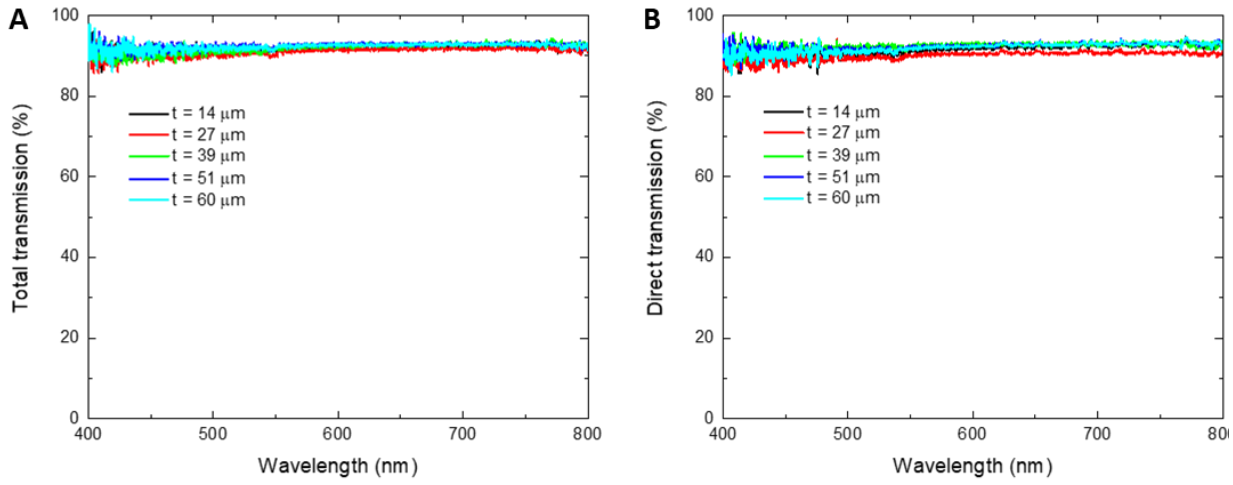

Figure S2. Thickness dependent transmission of nanocellulose films without particles. (A) Total and (**B**) direct transmission (%) spectra of films with different thicknesses.

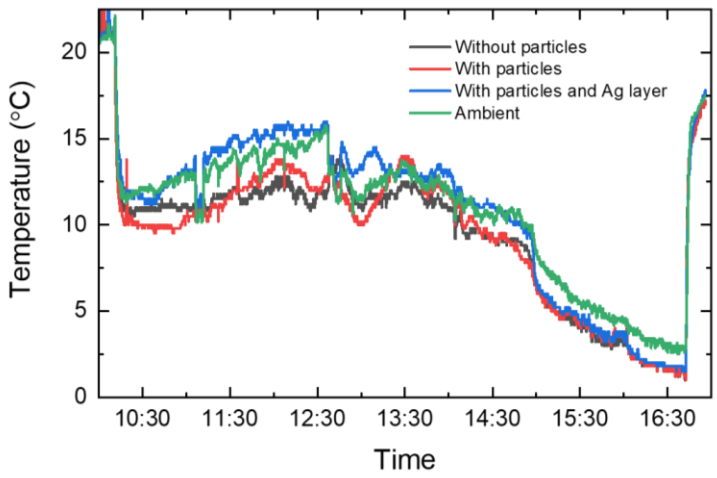

Figure S3. Cooling performance measurements. Temperature evolution of three different samples together with the ambient temperature for the whole time window during the measurements presented in Fig. 5.

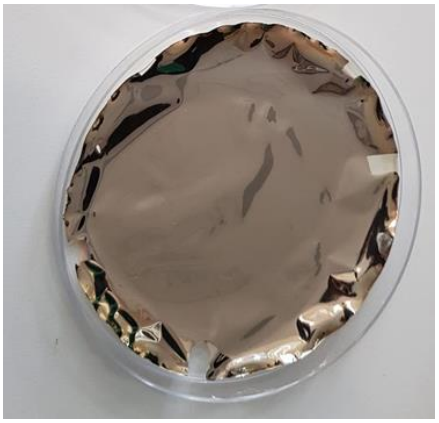

Figure S4. Silver as a reflective layer. Photograph of a sample with 150 nm Ag layer deposited on CNF paper, showing yellowish appearance.

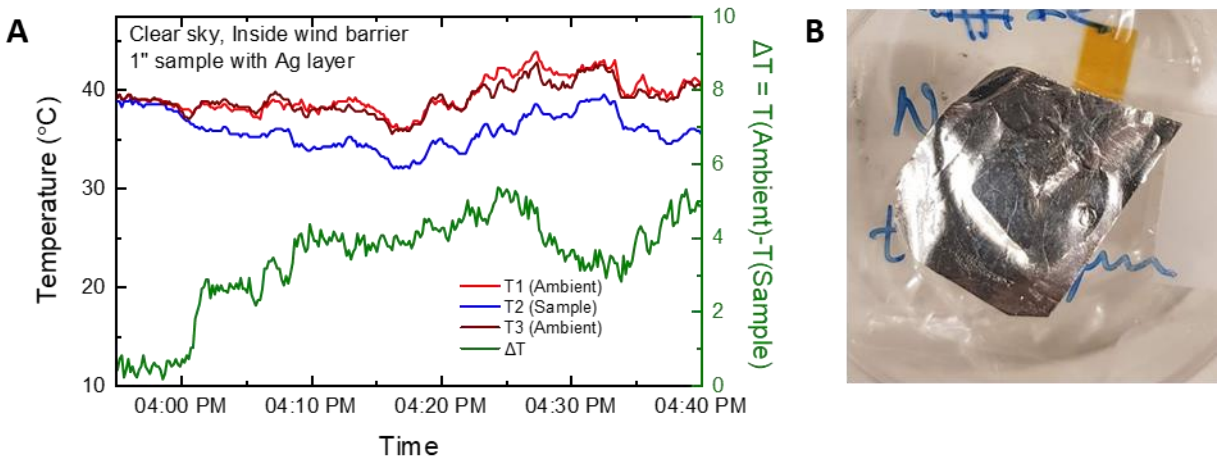

Figure S5. Cooling performance of a silver coated film. (**A**) Temperature measurements of an Ag-coated nanocellulose sample without microparticles, showing effective daytime passive radiative cooling. (**B**) Photograph of the same sample, placed in a petri dish.