coatings

Supplementary Materials: CNT-Based Solar Thermal Coatings: Absorptance vs. Emittance

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The absorption in all experiments was calculated from the reflection results. The % reflection of the SS substrate with and without the CNT, at different wavelengths, is presented in Figure S1.

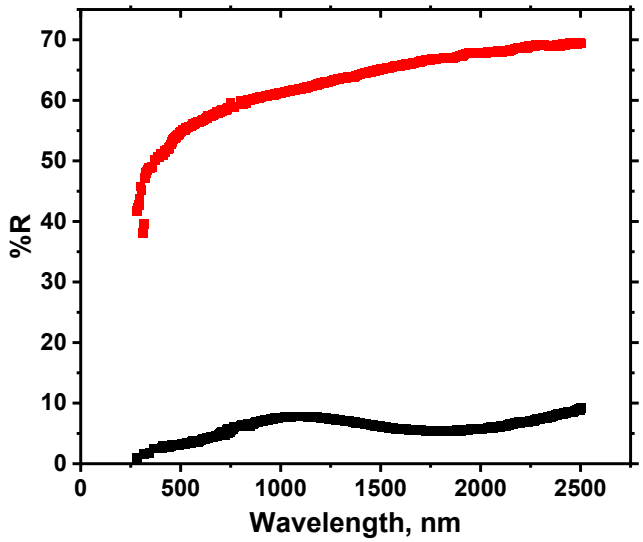

Figure S1. Reflectance spectra of a CNT coating without binders on an SS substrate (black line), and the reflectance spectra of the SS substrate alone (red line).

From Figure S1, it is seen that the SS substrate has a very high reflectance in the solar spectrum region. The overall absorptance in the region of 280–2500 mm was calculated to be 20.7%. In the case of CNT coating, it has one reflectance minimum at 1820 nm with a reflectance of 5.4% and one reflectance maximum at 1105 nm with a reflectance of 7.82% Thus, the total absorptance of the coating in the full solar spectrum region of 280–2500 mm was calculated to be 92.3%.