SUPPLEMENTARY MATERIAL

Superhydrophobic Nanocomposite of Paraloid B72 and Modified Calcium Carbonate Nanoparticles for Cultural Heritage Conservation

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Characterization of Paraloid B72

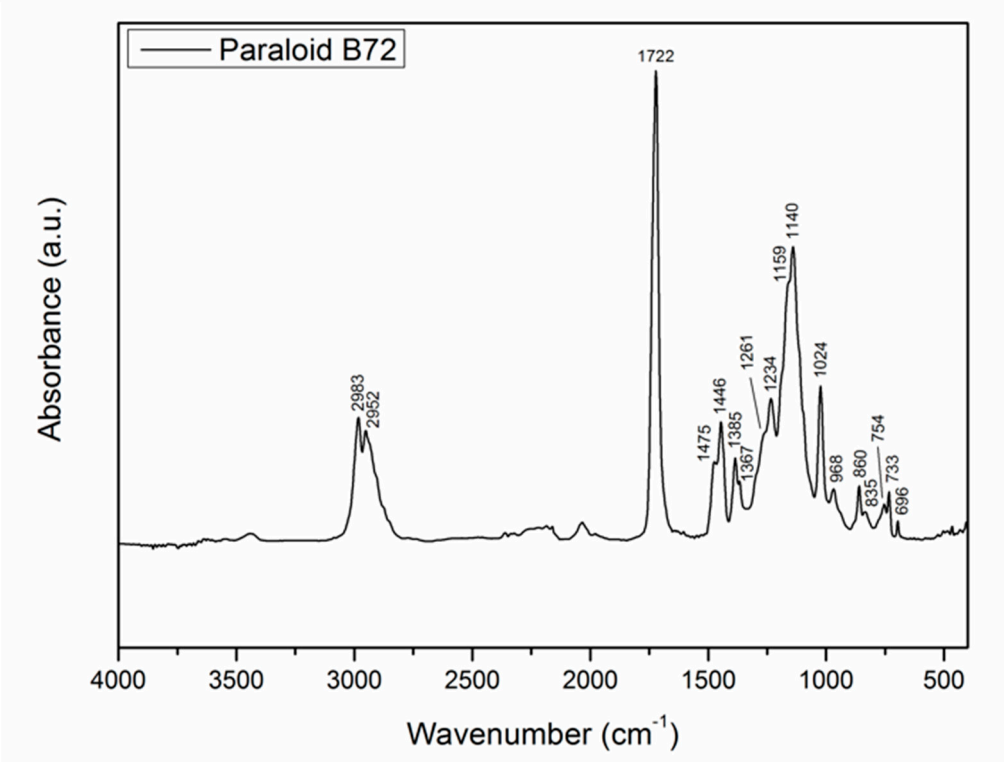

Figure S1. ATR-FTIR spectrum of Paraloid B72.

Characterization of limestone

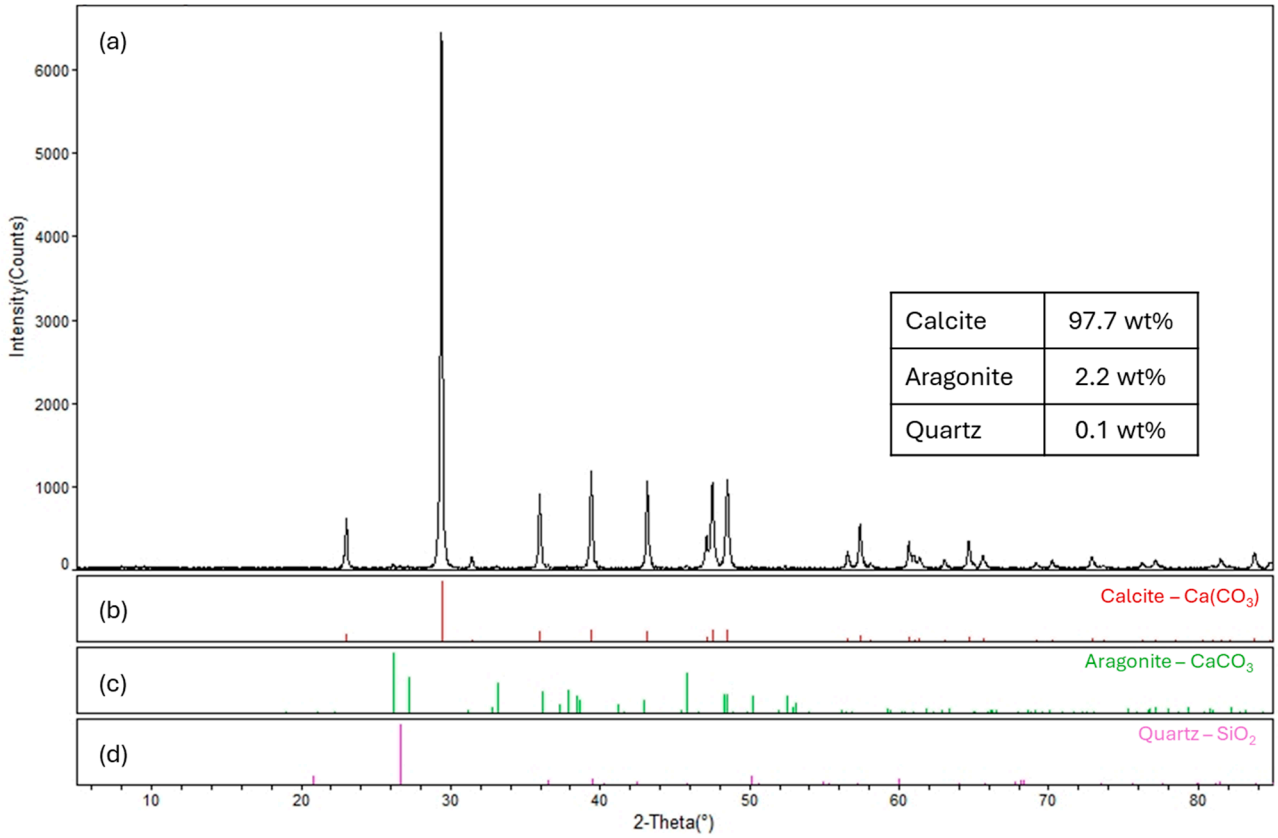

Figure S2. XRD patterns of (a) limestone sample and reference mineral phases of (b) calcite, (c) aragonite and (d) quartz. The table lists the relative concentration (wt%) of mineral phases identified in the limestone sample, as were calculated from the Rietveld analysis.

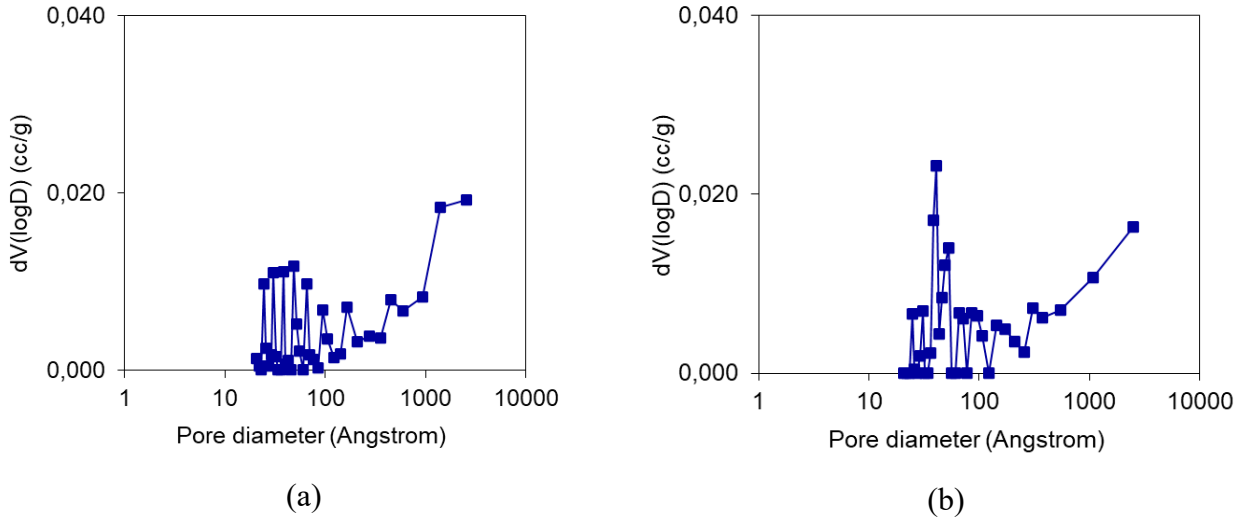

Figure S3. Nitrogen (a) adsorption and (b) desorption isotherms of limestone.

Parameter f_s

Table S1. Fraction of the solid surface that is actually in contact with the water drop (f_s) for the superhydrophobic surface investigated in the present study (herein) and for several other superhydrophobic surfaces reported in the literature.

f_s parameter	**Reference**
0.08	herein
0.10	ref 48 of the manuscript
0.09-0.14	ref 74 of the manuscript
0.052	ref 75 of the manuscript
0.04	ref 76 of the manuscript
0.04 – 0.06	ref 77 of the manuscript

ATR-FTIR characterisation of fresh (non-aged) and UV-aged composite coatings

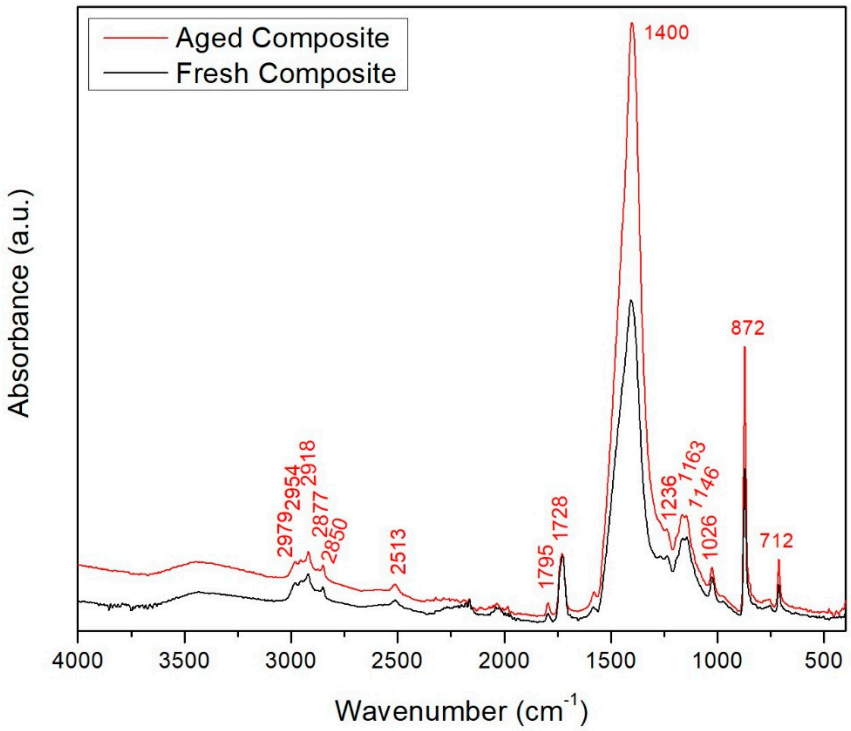

Figure S4. ATR-FTIR spectra of the fresh (non-aged) and UV-aged composite B72-3Ca coatings.