Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Open-Air Spray Plasma Deposited UV-Absorbing Nanocomposite Coatings

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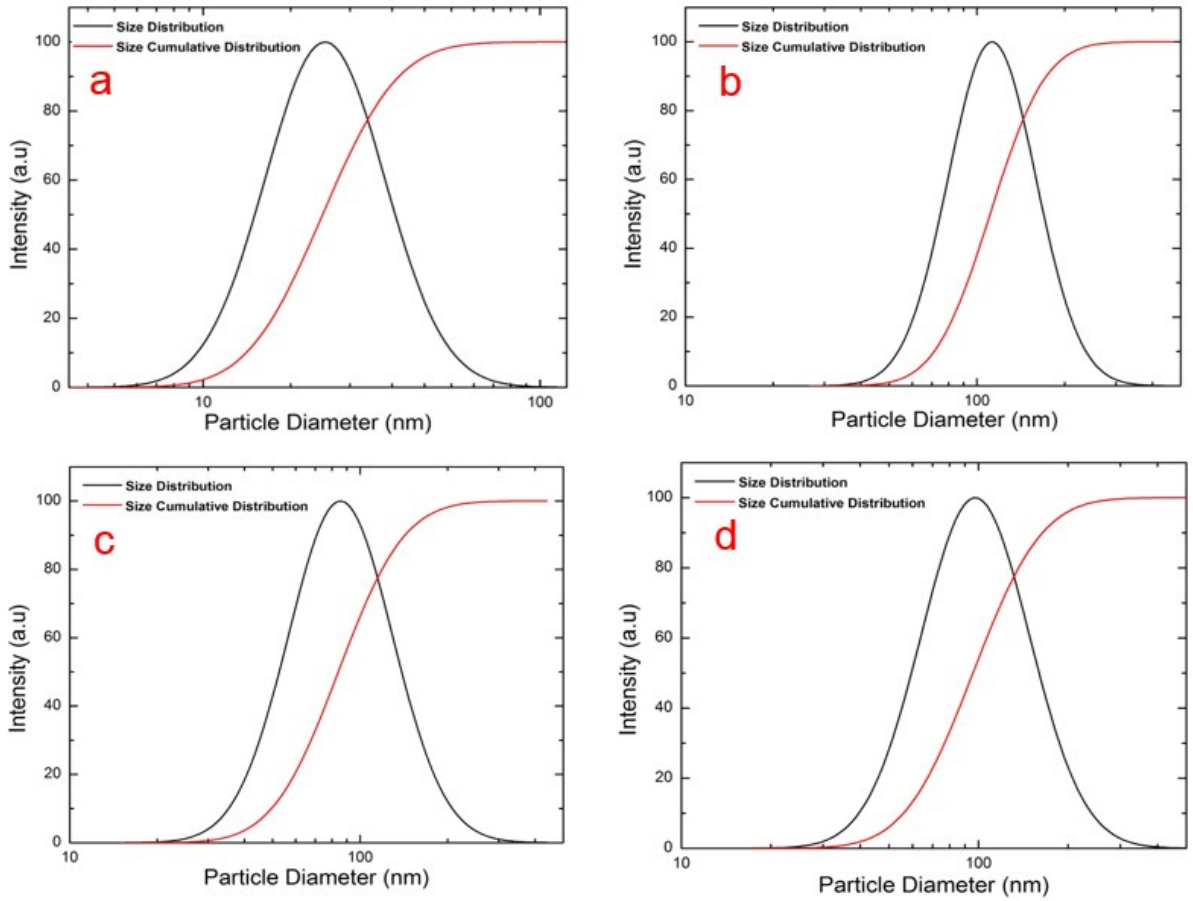

Figure S1. Size distribution of (a) SiO_2 (b) CeO_2 (c) TiO_2 and (d) CeO_2 + TiO_2 (1 : 1 by weight) nanoparticles dispersed in water (1 wt.%) determined by DLS.

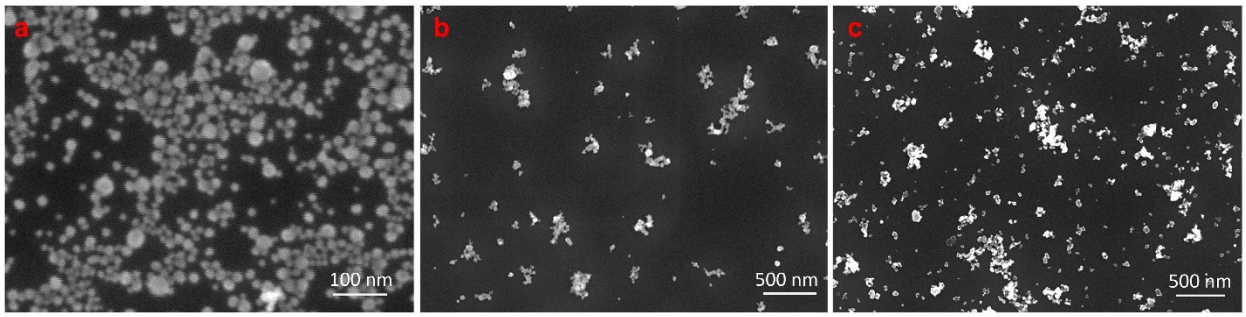

Figure S2. Sprayed (a) SiO_2 (b) CeO_2 and (c) CeO_2 + TiO_2 (1 : 1 by weigt) nanoparticles on silicon substrates without matrix deposition

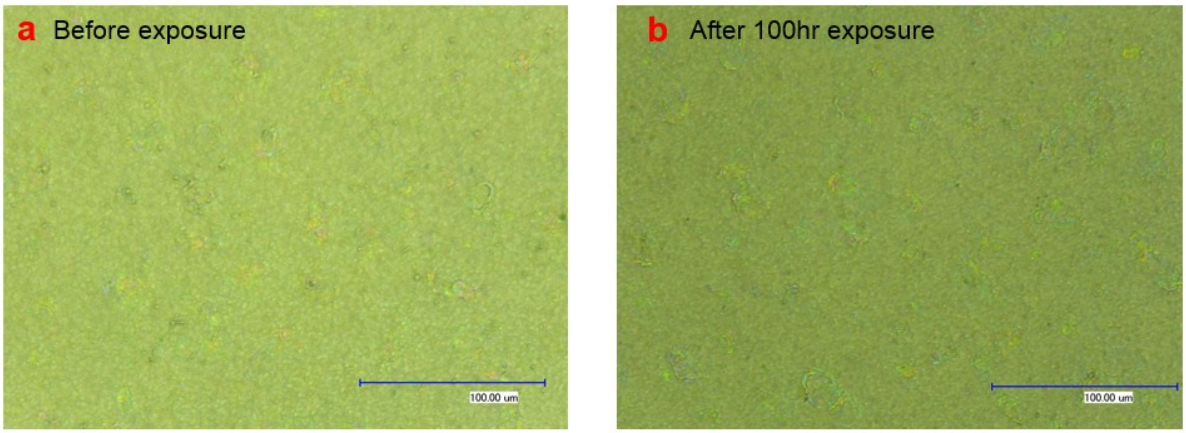

Figure S3. Optical images of NC coatings containing 20 wt.% of CeO_2 nanoparticles before and after 100 hours of intensified UV exposure

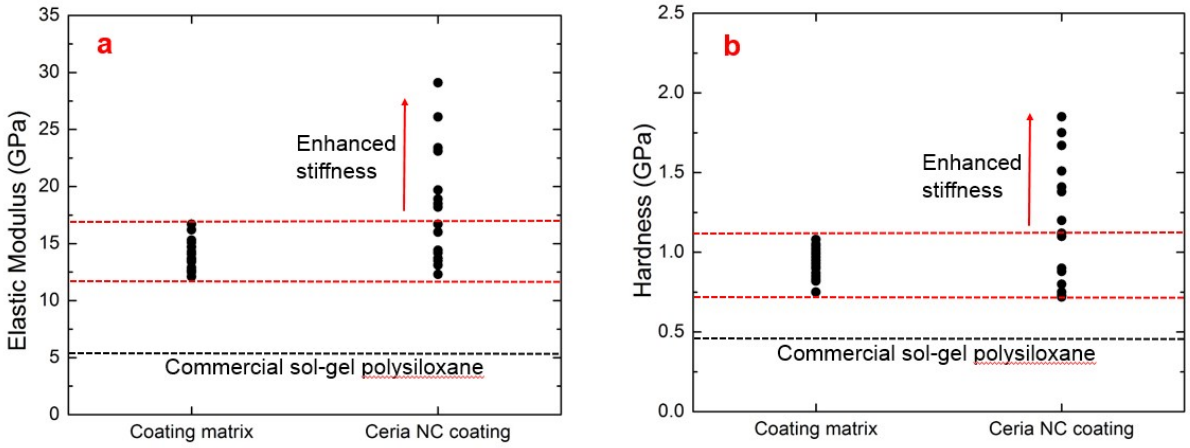

Figure S4. (a) Elastic modulus and (b) hardness of NC coatings containing 20 wt.% of CeO_2 nanoparticles

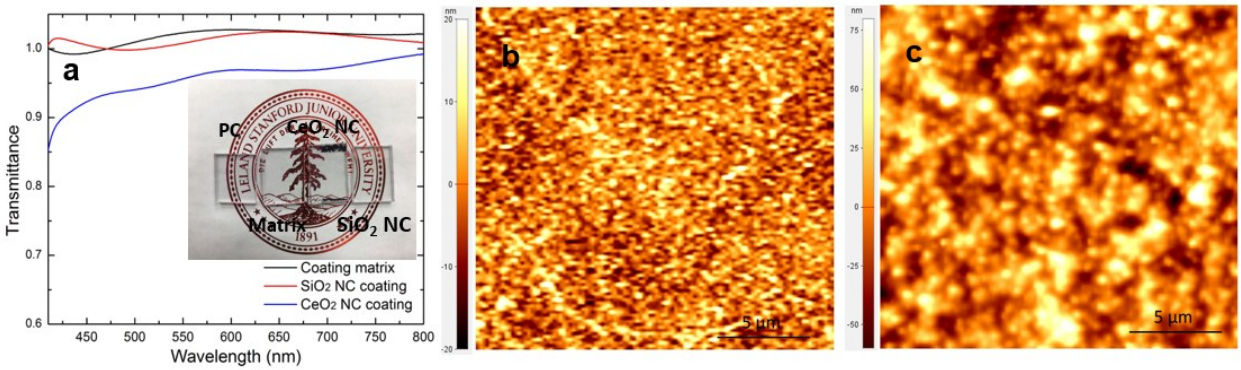

Figure S5. (a) Optical transmittance and surface morphology of NC coatings containing either (b) 20 wt.% SiO_2 or (c) 20 wt.% of CeO_2 nanoparticles deposited on PC substrate.