**Polymeric smart coatings containing modified capped Halloysite nanotubes for corrosion protection of carbon steel**

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Fig S1. a) SEM image of capped HNTs, b) Elemental mapping image of Capped HNTs with different distribution of elements and c) Elemental mapping image of capped HNTs with distribution of Co (II).



Figure S2: N2 adsorption-desorption isotherm of the pristine HNTs, uncapped and capped HNTs.

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Figure S3. Photographs images for (a, b) Blank epoxy coating and (c, d) modified capped HNT epoxy coating before and after immersion in 35 g/L NaCl solution for 20 days respectively.