**Modified halloysite nanotubes decorated with Ceria for synergistic corrosion inhibition of Polyolefin based smart composite coatings**

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**Table S1.** The electrochemical impedance data values attained for the Polyolefin coatings reinforced with modified particles immersed in 3.5 wt. % NaCl for different immersion times at room temperature.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Coatings | Time  (days) | *R*Pore  (GΩ.cm2) | CPE1  (sn Ω−1cm−2) | *R*ct  (GΩ.cm2) | CPE2  (sn Ω−1 cm−2) | *Rs*  (Ohms) | Goodness of fit |
| PO-HAL/SDS coatings | 1  12  18  24  30 | 14.97  28.51  40.94  46.30  48.73 | 4.30 x 10-12  3.35 x 10-12  2.67 x 10-12  2.20 x 10-12  2.02 x 10-12 | 24.56  38.28  62.65  80.32  94.96 | 7.49 x 10-12  6.00 x 10-12  5.88 x 10-12  4.02 x 10-12  3.13 x 10-12 | 345.6  394.9  358.2  337.8  338.7 | 21.6 x 10-3  17.4 x 10-3  22.1 x 10-3  15.4 x 10-3  13.6 x 10-3 |
| PO-CeO2@HAL/SDScoatings | 1  12  18  24  30 | 26.05  38.69  43.22  48.25  54.96 | 3.46 x 10-12  2.45 x 10-12  2.23 x 10-12  1.93 x 10-12  1.54 x 10-12 | 27.70  41.35  72.49  90.02  97.95 | 4.19 x 10-12  2.30 x 10-12  2.27 x 10-12  1.70 x 10-12  1.29 x 10-12 | 337.0  339.8  353.6  304.3  313.4 | 13.2 x 10-3  23.0 x 10-3  12.1 x 10-3  19.1 x 10-3  15.3 x 10-3 |