Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2017

## **Supporting information**



Figure 1 The SEM images of PANI (a) and c-PANI composites with  $W_r$  of 1:4 (b) and 1:8 (c)



Figure 2 Tafel plots for (a) bare EA-coated, (b) PANI-coated, (c) CP-coated electrodes measured in 3.5 wt.% NaCl aqueous solution

Table 1 Electrochemical corrosion measurements of EA-coated PANI-coated and CP-coated in 3.5 wt.% NaCl aqueous solution

	E <sub>corr</sub> /V	$I_{corr}/A \cdot cm^{-2}$
EA	-0.959	1.20×10 <sup>-5</sup>
EA-PANI	-0.493	9.40×10 <sup>-9</sup>
EA-C-PANI	-0.336	5.87×10 <sup>-10</sup>