Supplementary Information (SI) for RSC Applied Interfaces.

Accessing the corrosion resistance for metallic surfaces using long-chain fatty acids

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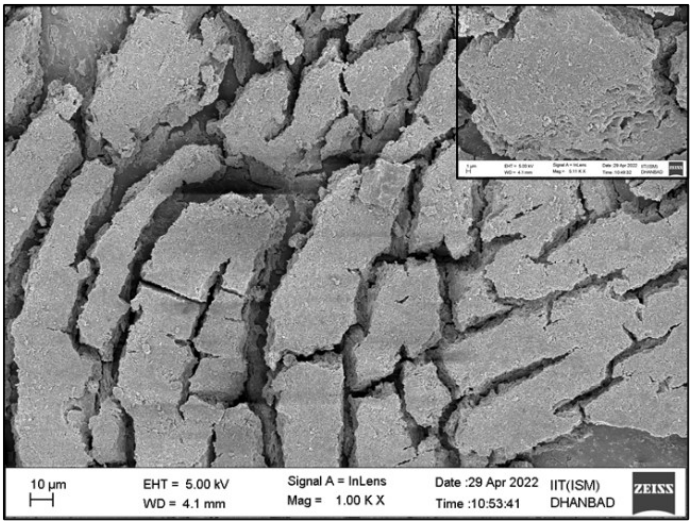

Figure S1. SEM image of octadecanoic acid coated surface after 2 h of annealing at 250 °C.

The surface morphology of octadecanoic acid after annealing at 250 °C is presented in the figure above. It was observed that annealing at this temperature led to the formation of extensive cracking and fragmentation throughout the sample. The surface exhibited considerable shrinkage and structural rearrangement, as evidenced by the irregularly distributed cracks. The high annealing temperature likely caused significant thermal expansion of the coating followed by contraction upon cooling, which resulted in crack formation. Consequently, the formation of these cracks severely reduced the wettability of the surface.