

Supplementary Information

## Neodymium-decorated graphene oxide as a corrosion barrier layer on Ti6Al4V alloy in acidic medium

N. Palaniappan\*<sup>a</sup>, I. S. Cole\*<sup>b</sup>, F. Caballero-Briones<sup>c</sup>, S. Manikam<sup>d</sup>, C. Lal<sup>e</sup>, J. Sathiskumar<sup>f</sup>.

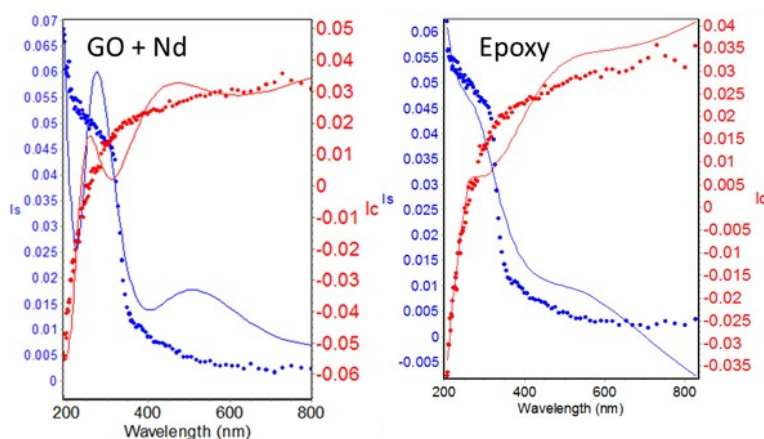


Figure. S1. Ellipsometry spectra of the GO+Nd coating and the reference epoxy coated Ti6Al4V alloys. Dots correspond to experimental data, and solid lines to spectra fitting.

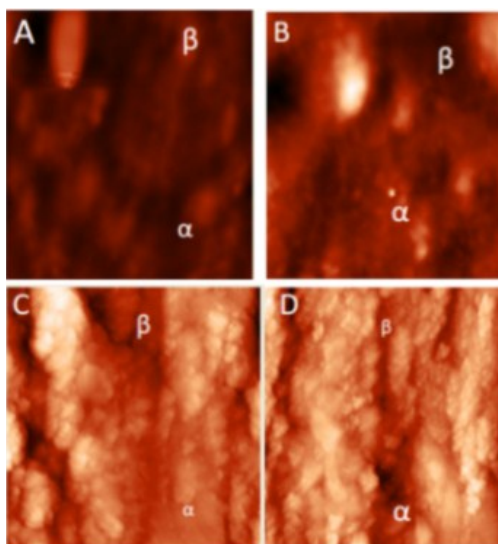


Figure. S2. AFM studies of GO+Nd coated Ti6Al4V alloy (A-B) and Epoxy coated Ti6Al4V alloys (C-D)

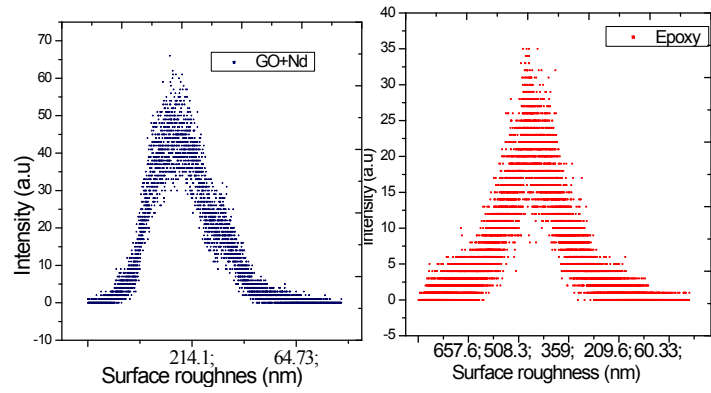


Figure. S3 GO+Nd and epoxy coating titanium alloy surface roughness

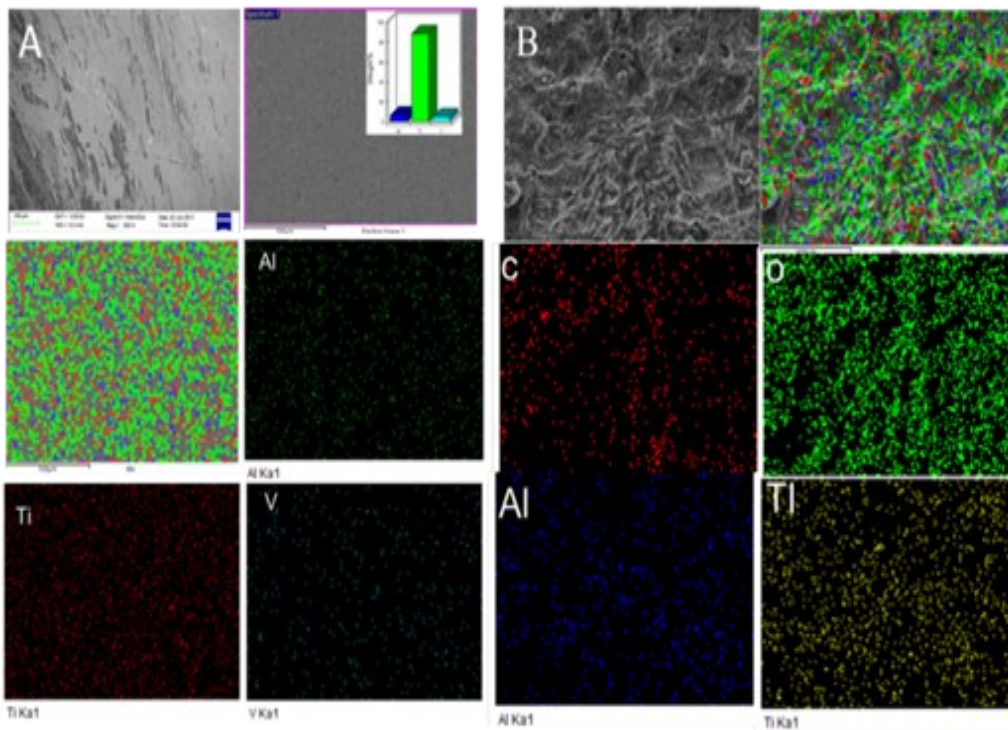


Figure. S. 4. After corrosion treatment surface morphology of GO+Nd coated Ti6Al4V alloy (A) and epoxy coated Ti6Al4V titanium alloy