

Supplementary content

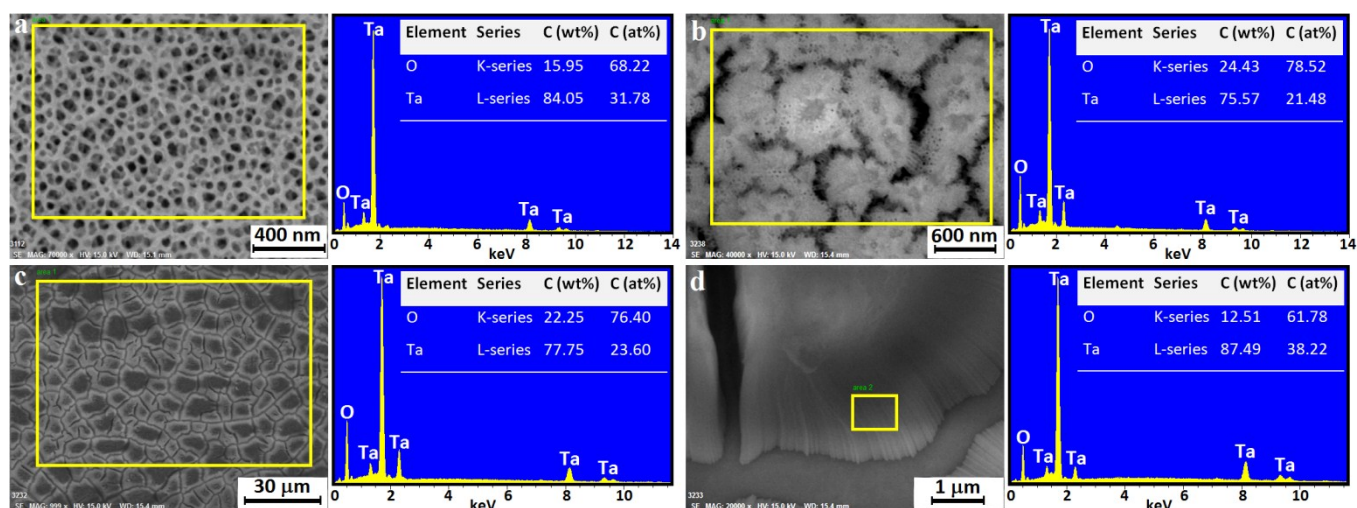


Fig. S1 EDS spectra of the coatings on Ti64 after the two-step anodization process with different durations in H_2SO_4 : HF (99:1) + 5% EG electrolyte at a constant potential of 15 V; (a) 1, (b) 10, (c) 20 min, and (d) EDS cross sectional analysis.

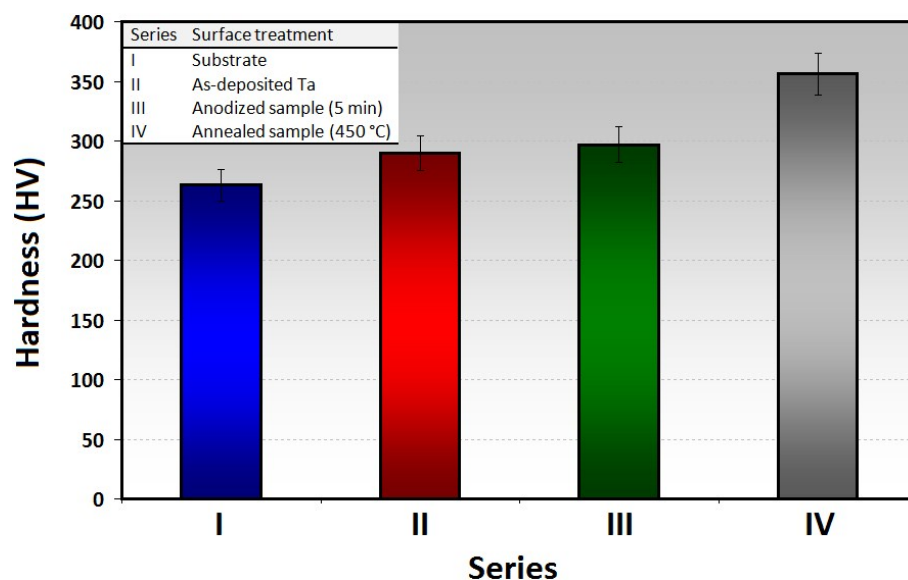


Fig. S2 The disparity in the Vickers hardness test of the substrate, as-deposited Ta layer and 5 min anodized sample before and after annealing at 450 °C for 1 h.