## **Electronic Supporting Information (ESI):**

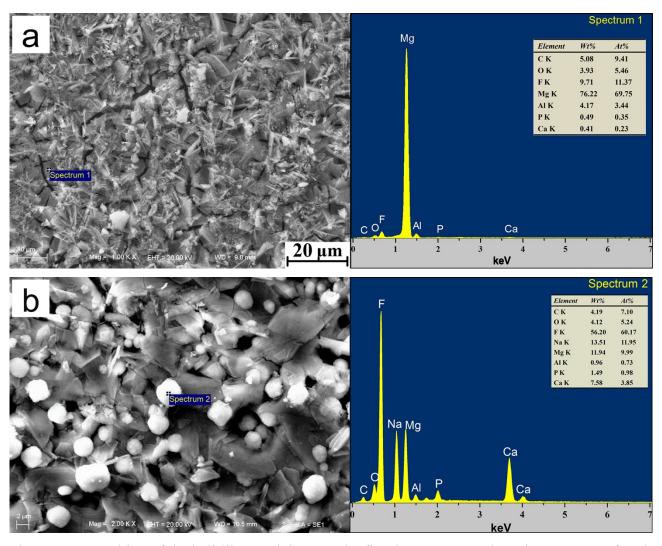
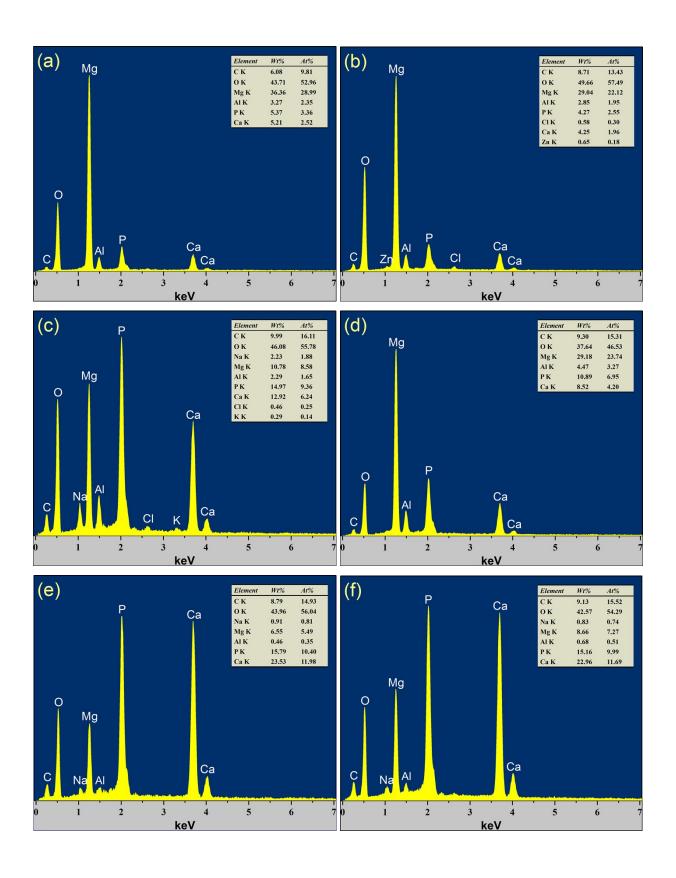


Fig. S1. Composition of the ball-like precipitate on the fluorine post-treated coating at pH=12 for 6h, examined by Energy dispersive X-ray spectroscopy (EDS).



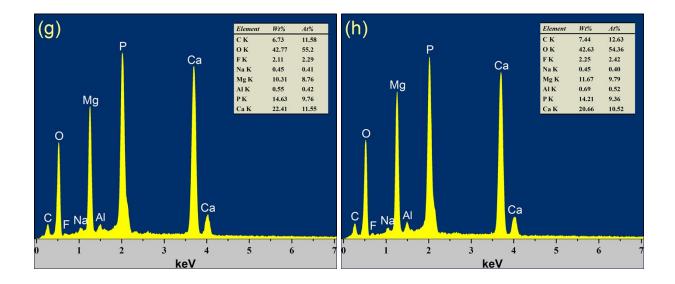


Fig. S2. EDS results of (a, b) the AZ60 alloy, (c, d) the CaP, (e, f) HA and (g, h) F-CaP coatings immersed in SBF for (a, c, e, g) 7 days and (b, d, f, h) 15 days.

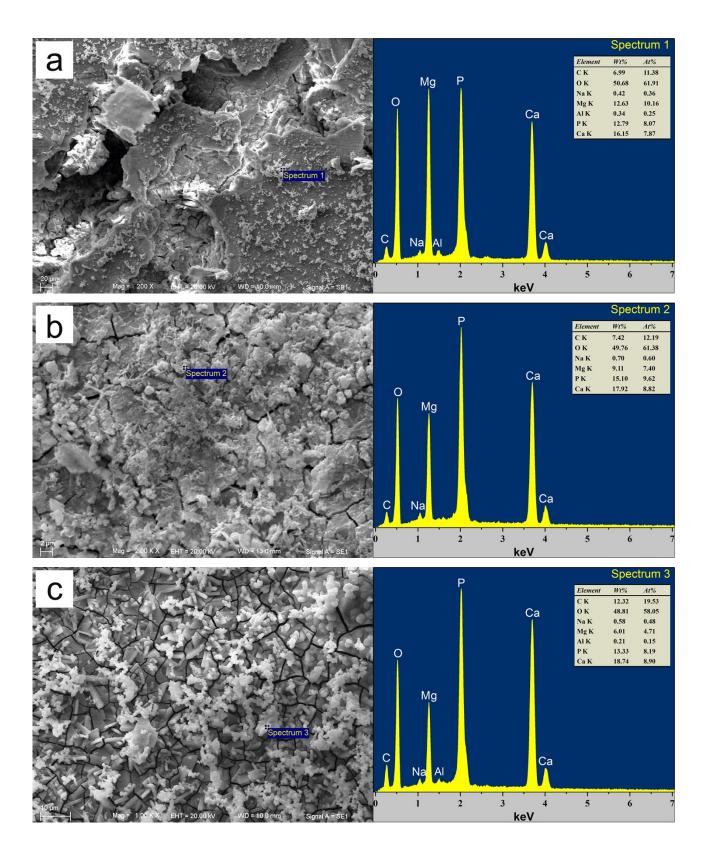


Fig. S3. Composition of the outer precipitates examined by EDS: (a) the AZ60 alloy, (b) the CaP and (c) the F-CaP coatings.