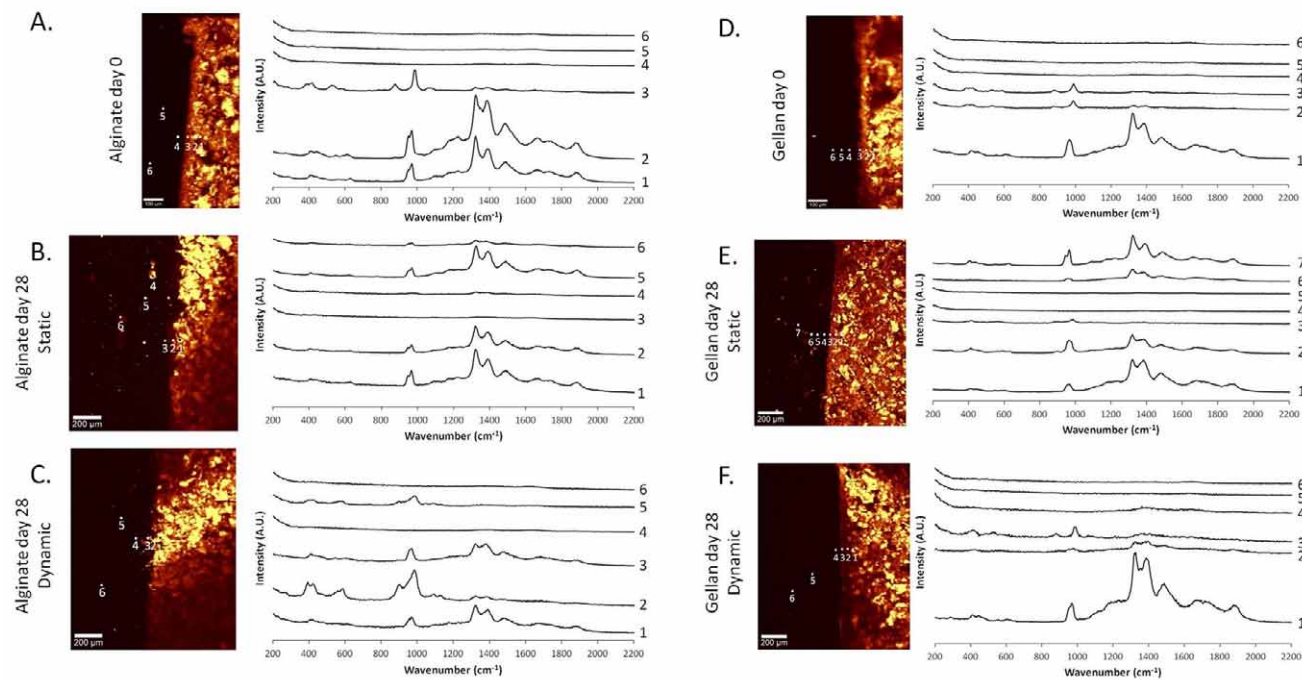
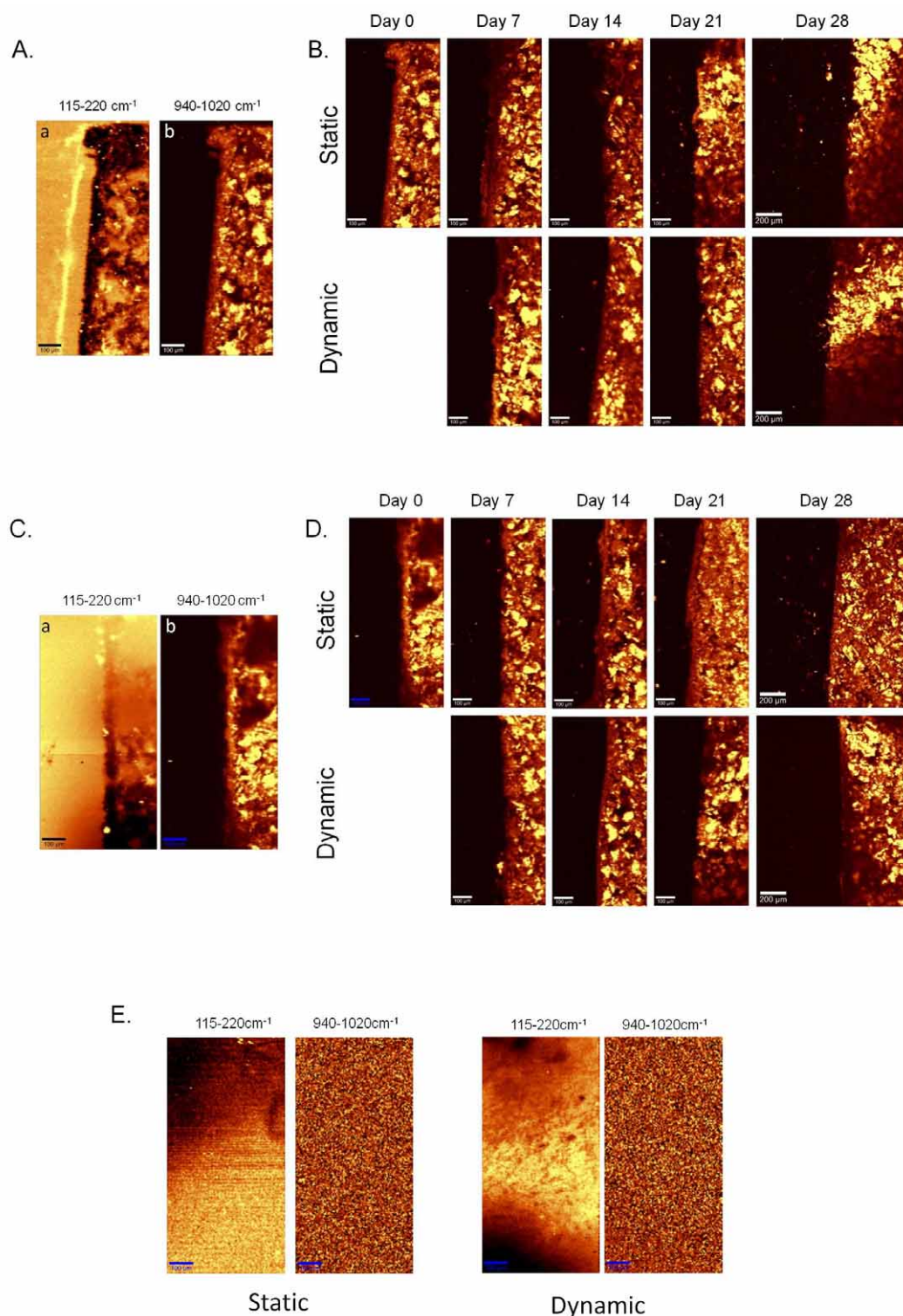


Supplementary Figure 1



Supp Fig. 1. Intensity map images and corresponding Raman spectra for the designated points in alginate (A-C) and gellan (D-F) hard-soft material constructs at day 0 and day 28.

Supplementary Figure 2



Supp Fig. 2. Intensity map images of A) alginate-brushite constructs and C) gellan-brushite constructs Each grouping shows a) Autofluorescence (115-220 cm^{-1}) and b) mapping for phosphate (940-1020 cm^{-1}). **B, D)** Mapping for phosphate in static or dynamic aging conditions. **E)** Autofluorescence and mapping for phosphate in gellan only gels after 17-18 days in static or dynamic ageing conditions. Unlike the composites, where a heterogeneous structure is displayed, gellan alone remains homogenous in structure, and without the appearance of phosphate containing particles within the body of the gel.