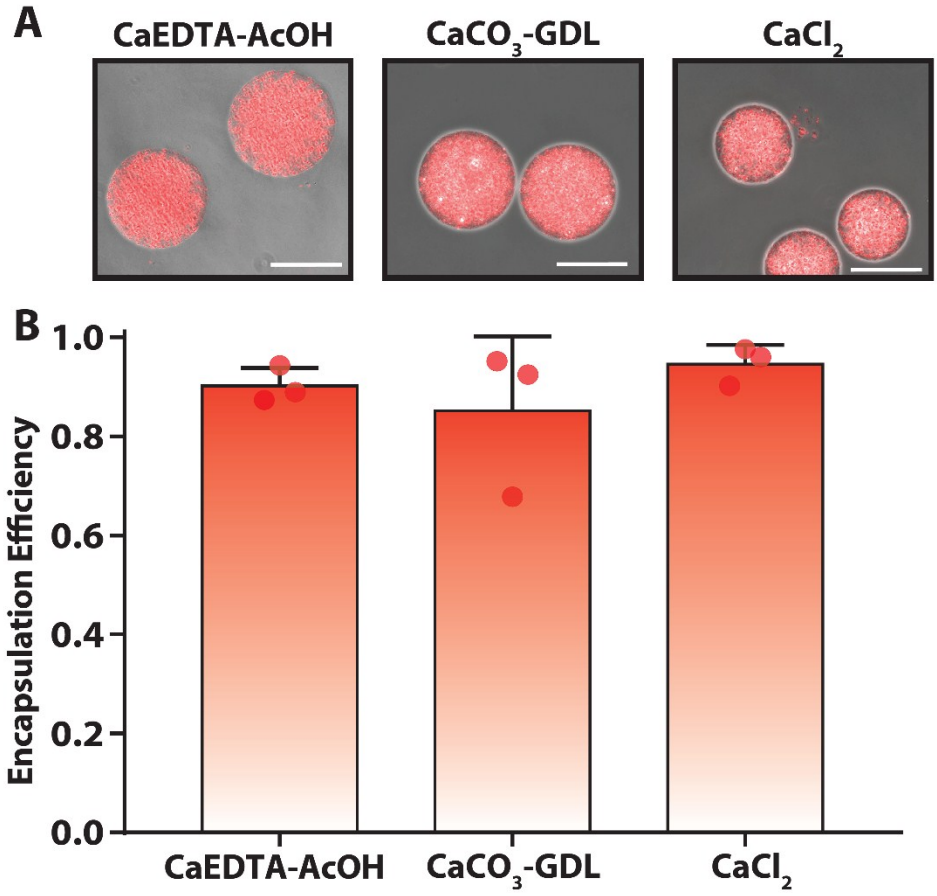
Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supplementary Information

Microgel loading efficiency

The loading efficiency of fluorescently labeled polystyrene particles of 0.1μm diameter (Sigma Aldrich) was analyzed for different microgels. In brief, particles were coated in bovine serum albumin (Sigma Aldrich), sonicated, and then loaded into precursor alginate solutions at a concentration of 1.25 mg/mL. 100 μL of microgels was then generated and immediately digested with 10 units/mL alginate lyase (Sigma Aldrich) in order to recover the encapsulated particles. The fluorescent intensity (excitation/emission = 575nm/610nm) of the resulting digest and the precursor alginate solutions were then measured using a SpectraMax i3X fluorescent microplate reader (Molecular Probes) and converted to concentration of the particles. Loading efficiency was then calculated as (mass of particles recovered) / (mass of particles loaded). Additionally, fluorescent and bright field images of the resultant microgels were captured and composite images were created using Image J.

Supplementary Figure 1



Supplementary Figure 1 – Loading efficiency of fluorescent particles encapsulated within alginate microgels. Fluorescently labeled 100 nm polystyrene beads were efficiently loaded within alginate microgels as visualized by fluorescent microscopy (A) and the loading efficiency was measured by quantifying the fluorescent intensity present in 1% alginate microgels (B). Calibration bar represent 100µm. Bar represent mean, scatter dot plots displays individual measurements and error bars represents standard deviation. (B, n=3).