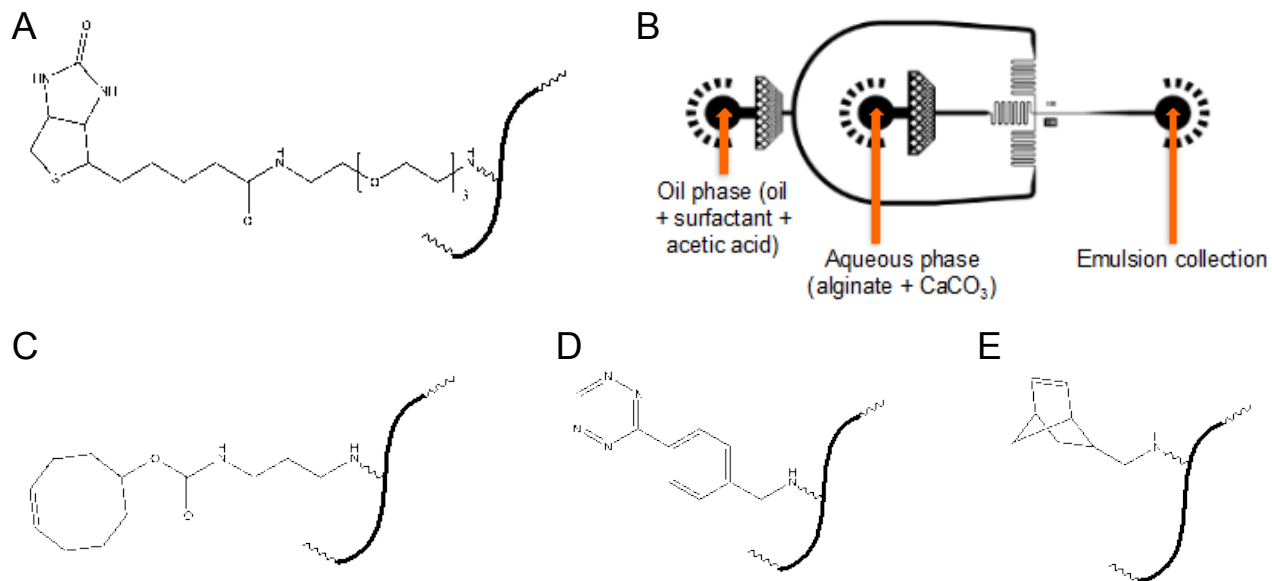
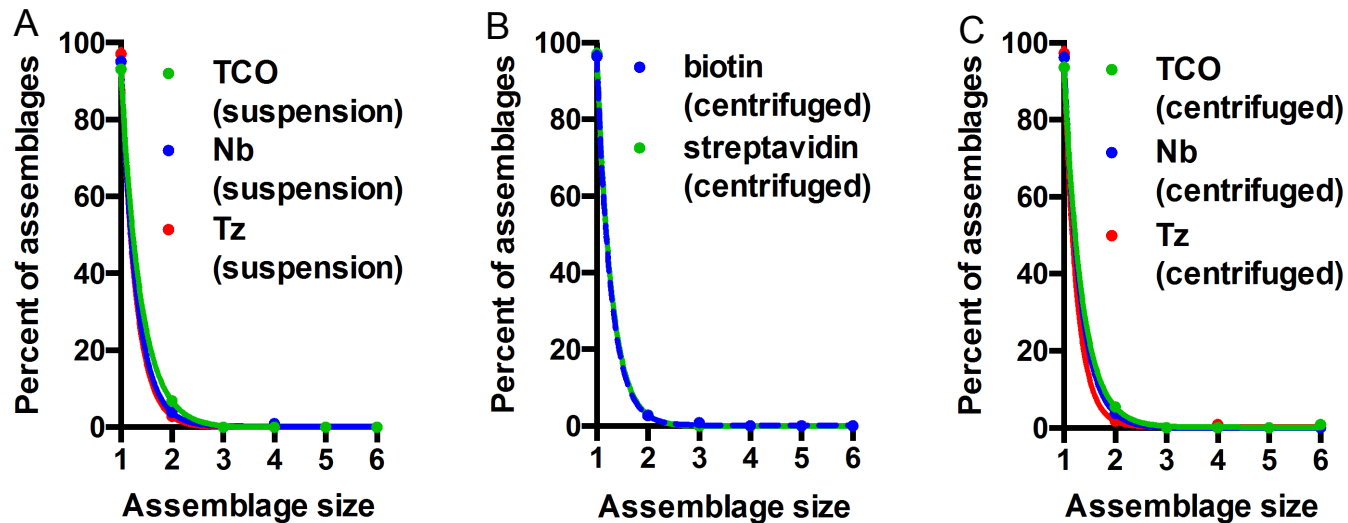


# Supplemental Figure 1



**Supplemental Figure 1.** (A) Chemical structure of biotin-functionalized alginate. (B) Cross-junction microfluidic device used to fabricate alginate microgels. (C) Chemical structure of transcyclooctene(TCO)-functionalized alginate. (D) Chemical structure of tetrazine(Tz)-functionalized alginate. (E) Chemical structure of norbornene(Nb)-functionalized alginate.

# Supplemental Figure 2



**Supplemental Figure 2.** (A) Distribution of microgel clusters of TCO (green), Nb (blue), and Tz (red) microgels after suspension-mediated assembly of a single microgel type. (B) Distribution of microgel clusters of biotin (blue) and streptavidin (green) microgels after centrifugation-mediated assembly of a single microgel type. (C) Distribution of microgel clusters of TCO (green), Nb (blue), and Tz (red) microgels after centrifugation-mediated assembly of a single microgel type. Distributions of microgels before and after centrifugation were statistically not significant,  $p > 0.05$ , Kolmogorov-Smirnov test.