Electronic Supplementary Material (ESI) for Soft Matter.

Supporting information for

Using intra-microgel crosslinking to control the mechanical properties of doubly crosslinked microgels

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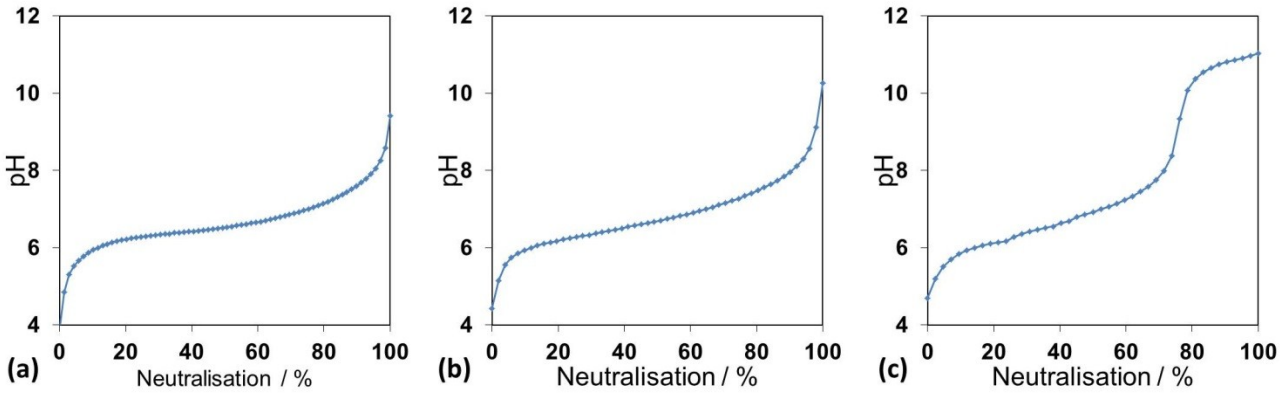

Fig. S1. Potentiometric titration data for (a) SX DVB, (b) SX DVB-BDDA, (c) SX BDDA MGs. All measurements were performed in the presence of aqueous 0.01 M NaCl solution.

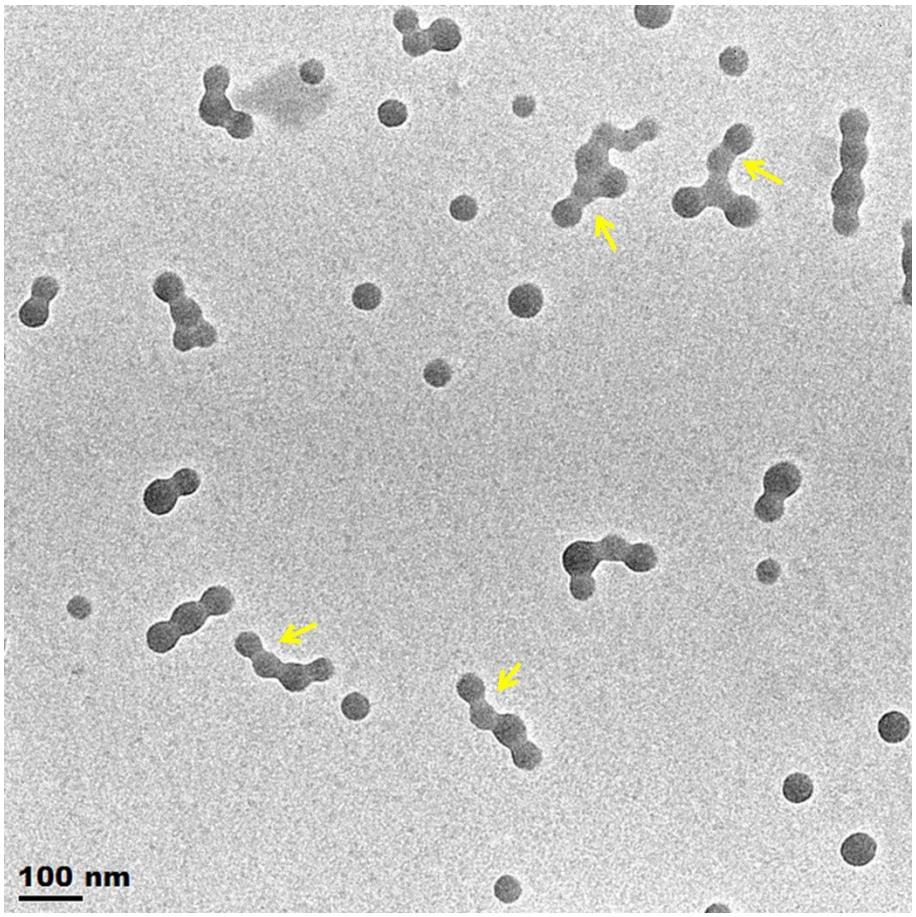

Fig. S2. TEM image for SX DVB MG particles. The yellow arrows indicate the boundaries of particle-particle contact area.

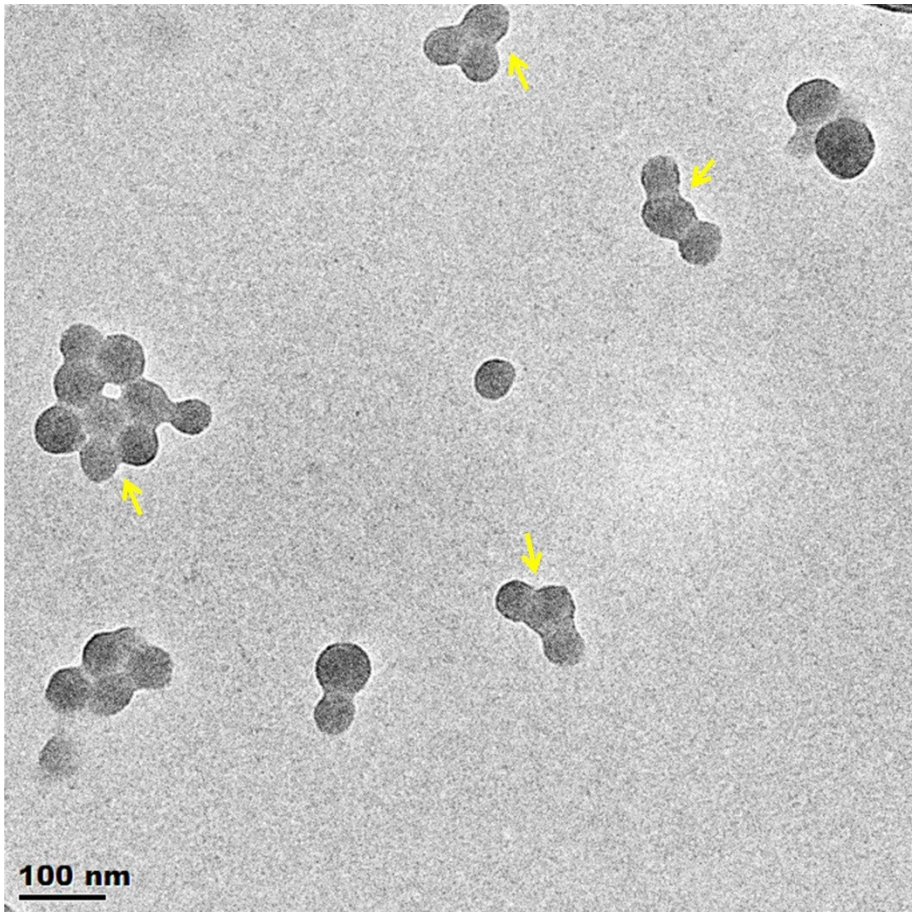

Fig. S3. TEM image for SX DVB-BDDA MG particles. The yellow arrows indicate the boundaries of particle-particle contact area.

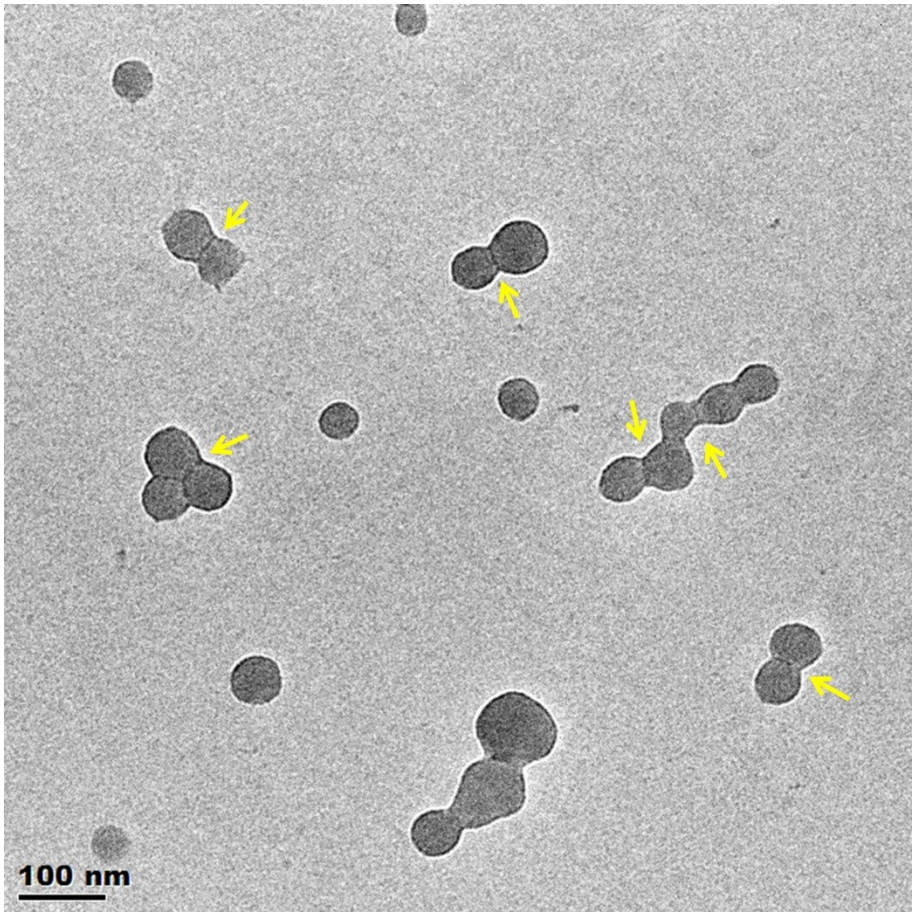

Fig. S4. TEM image for SX BDDA MG particles. The yellow arrows indicate the boundaries of particle-particle contact area.

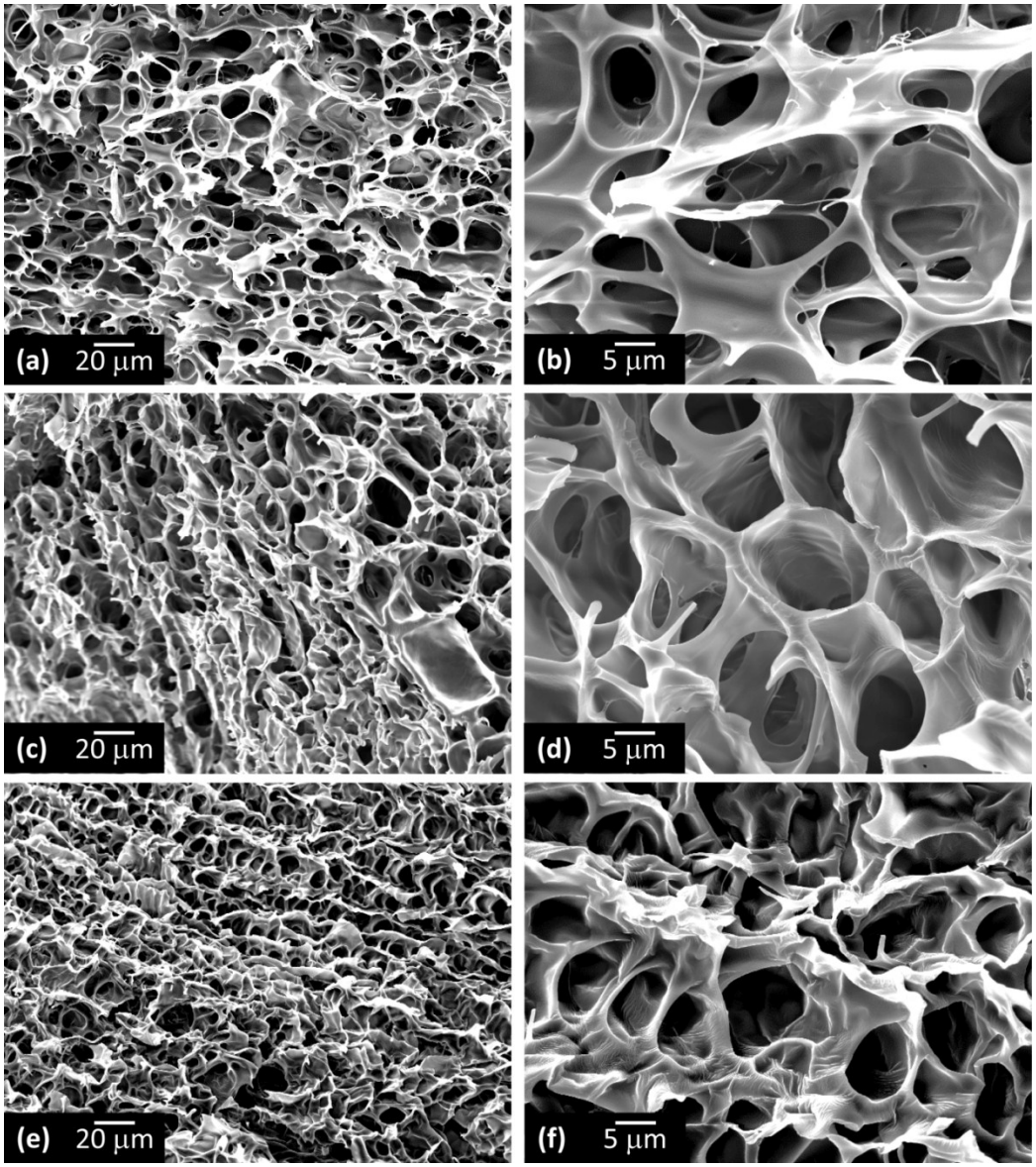

Fig. S5. SEM images for freeze-dried SX DVB (a and b), SX DVB-BDDA (c and d) and SX BDDA (e and f). (a),(c) and (e) are low magnification images while (b), (d) and (f) are higher magnification images.

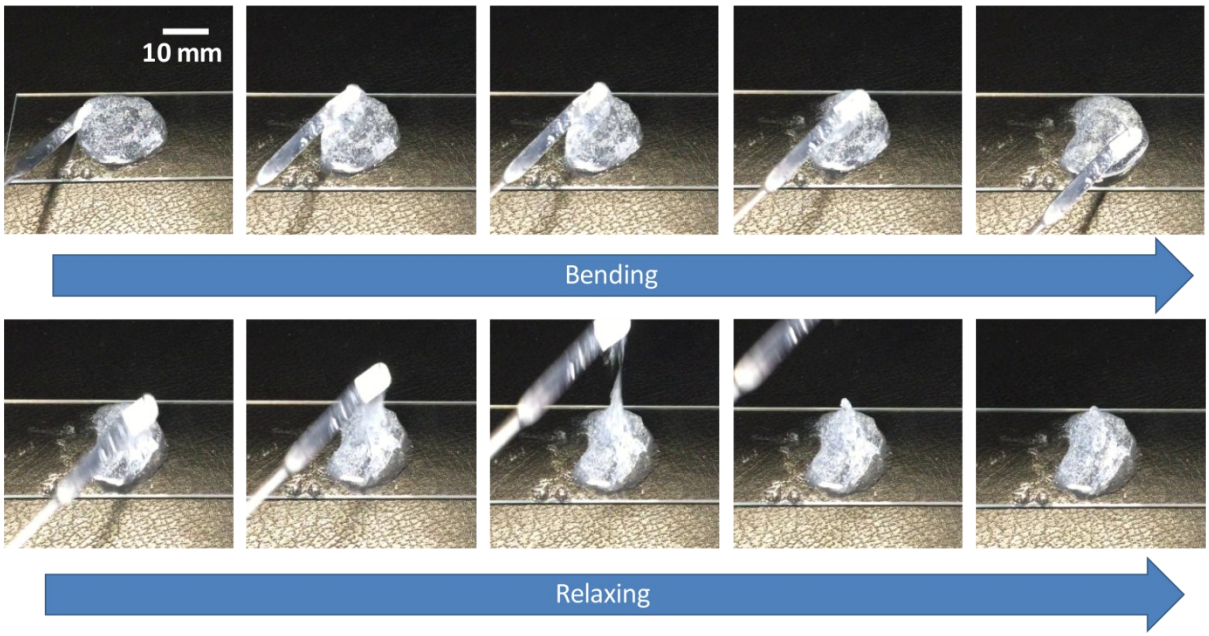

Fig. S6. This SX DVB MG physical gel was subjected to similar bending and relaxation stresses to that used for the DX DVB MG shown in Fig. 7. However, the SX DVB MG physical gel flowed and did not bend. When an attempt was made to move the spatula in the opposite direction to the bend motion the spatula broke free of the gel.