High concentration crystalline silk fibroin solution for silk-based materials

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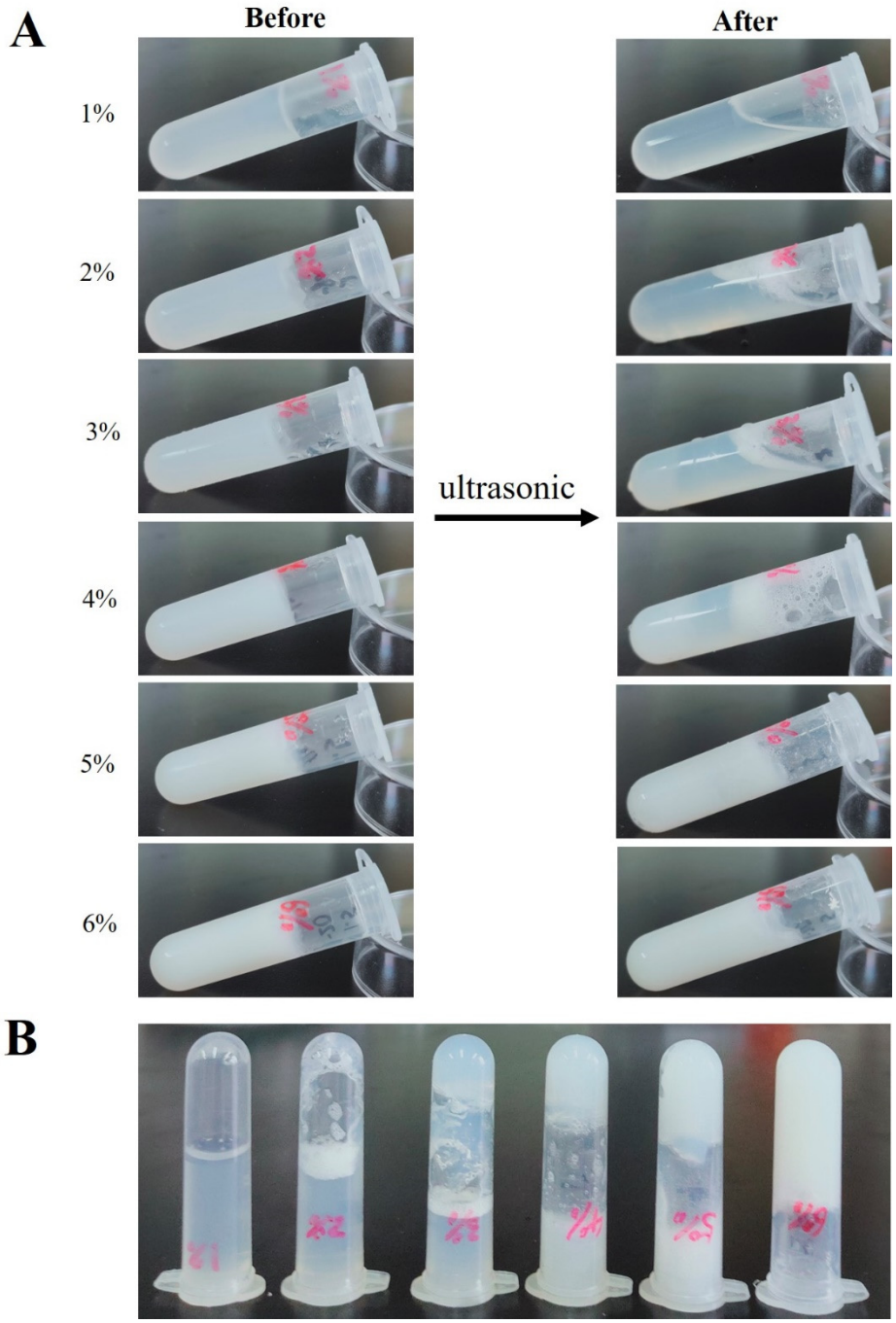

Figure S1: Morphology of silk fibroin hydrogels/solution. A) Hydrogels before (left) and after (right) ultrasonic with 70% ultrasonic power. After ultrasonic, low concentration hydrogels (1-5%) turned into solutions and high concentration hydrogel (6%) remained solid state. B) Conversion efficiency of hydrogels with different concentrations under the same ultrasonic power.

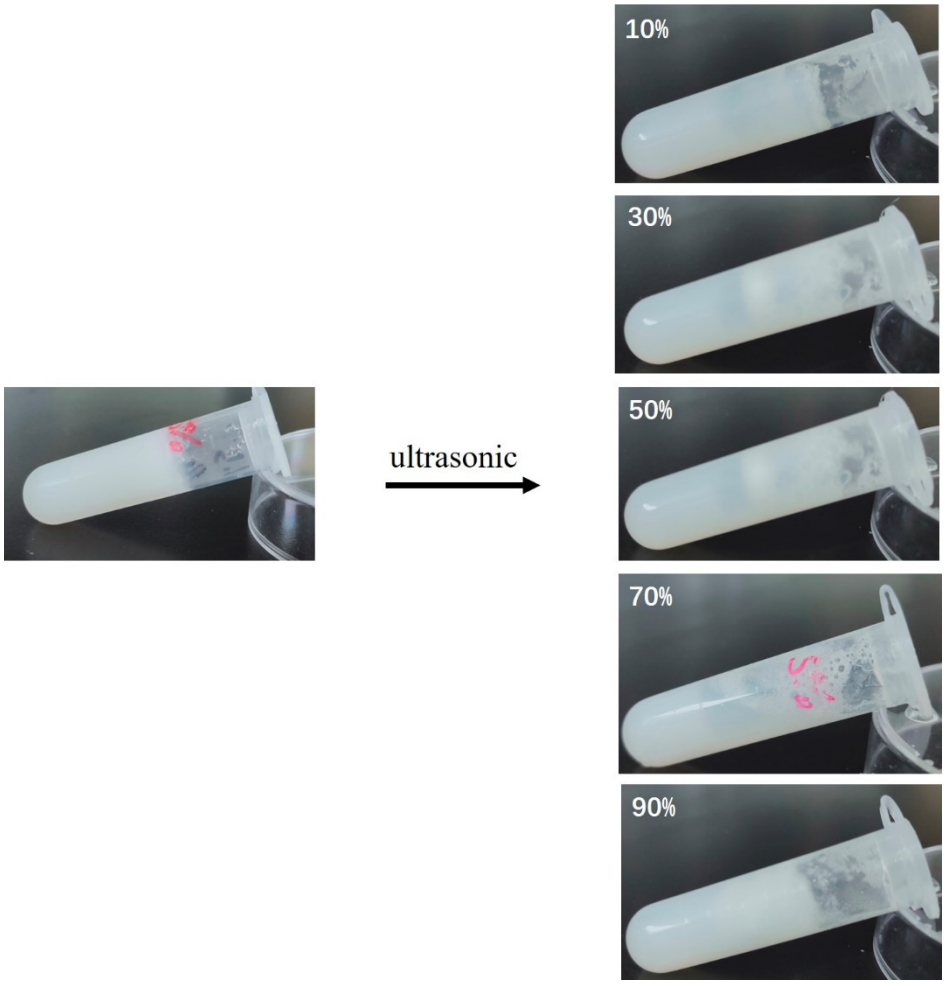

Figure S2: 5% Hydrogels before (left) and after (right) ultrasonic. With 10% ultrasonic power, only a small amount of gel was converted into solution. With the increase of ultrasonic power, the conversion efficiency increased gradually. When the power was 70%, the conversion efficiency was the highest. When the power reaches 90%, the solution produced decreases.

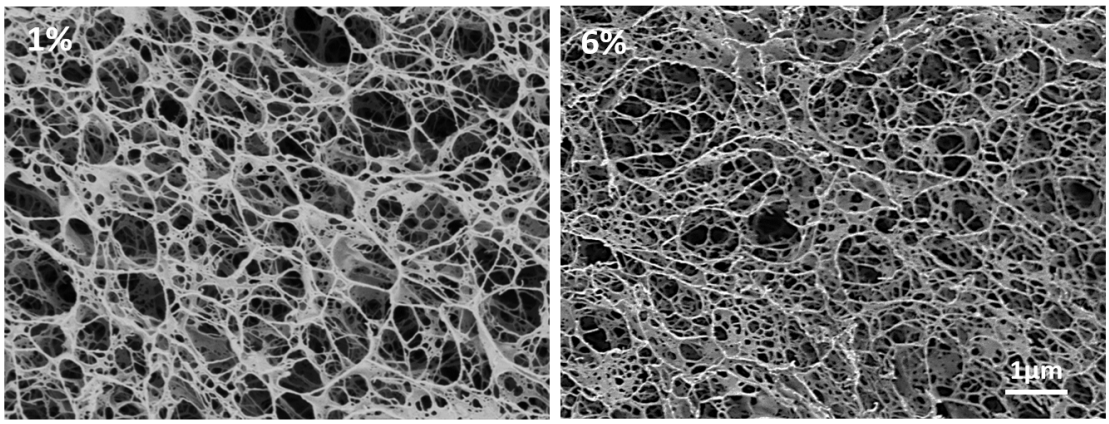

Figure S3: SEM morphology of hydrogels with different concentration.