

Supporting Information for

Synthesis of Bio-Inspired Viscoelastic Molecular Networks by Metal-Induced Protein Assembly

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ELP-MEP-ELP (E-MEP-E)

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ATGAAAGGCAGCAGCCATCATCATCATCACGTCGACGCCCATATTGTCATGGTTGATGCATA
CAAGCCGACGAAGCTCGACGGCCACGGCGTGGGTGTTCCGGGCGTCGGTGTGCCGGGTGTGGGTG
TGCCGGGCGAAGGTGTGCCGGGCGTCGGTGTGCCGGGTGTTGGTGTTCGGGGCGTTGGTGTGCCG
GGCGTTGGCGTGCCGGGCGAGGGTGTGCCGGGCGTTGGTGTTCGGGGCGTGGGTGTGCCGGGCGT
GGGCGTGCCGGGCGTCGGTGTTCGGGGCGAGGGTGTGCCGGGCGTAGGTGTGCCGGGCGTTGGTG
AGCTCATGGATACGTACAAGCTGATCTTGAATGGTAAGACCTTGAAGGGCGAAACCACGACTGAA
GCTGTAGACGCCGCCACCGCAGAGAAGGTATTCAAACAATATGCCAATGACAACGGTGTGGCTG
TGGGCTTGGACTGATCGAGGTGGAAAAGCCCTTATACGGTGTGGAGGTATTTGTCGGTGAGACAG
CTCACTTCGAAATCGAATTATCGGAGCCCGATGTTTCATGGGCAATTCAAATTTAAAAGGGCAACCG
TTGGCTGCTAGTCTGACTGTGAAAATCATCGAAGACGGCAAGAAGCACATTTTAATCCTGCATAA
TTGCCAGCTGGGCATGACCGGGGAAGTTAGCTTTCAAGCGGCAAATACAAAGTCAGCCGCCAACT
TAAAAGTTAAGGAGCTTTGTGGCGACGGGGAATGGACATACGACGATGCCACCAAGACGTTTACT
GTGACTGAACGTAGCACTAGTGTGCCGGGCGTCGGCGTGCCGGGCGTAGGTGTTCCGGGCGAGGG
TGTTCCGGGCGTTGGTGTGCCGGGCGTCGGCGTGCCGGGCGTGGGTGTTCCGGGCGTAGGTGTGC
CGGGCGAGGGTGTGCCGGGCGTGGGCGTGCCGGGCGTAGGTGTTCCGGGCGTAGGTGTTCCGGGC
GTAGGTGTTCCGGGTGAAGGCGTGCCGGGCGTTGGTGTGCCGGGTGTGGGCGTGCCGGGCGGGCT
GCTCGACGCCCATATTGTCATGGTTGATGCATACAAGCCGACGAAGCTCGAGTGAAGAAATAA
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MKGSSHHHHHVD **AHIVMVDAYKPTK**LDGHGVGVPGVGVPGVGVPGEVPGVGVGVPGVGVP

GVGVPGVGVPGEVPGVGVGVPGVGVPGVGVPGEVPGVGVGVPVGVGEL **MDTYKLIING**

KTLKGETTTEAVDAATAEKVFKQYANDNGVGCGLG **LIENVNPLYSVGVVGVGTANFTEI**

SEPDVNSQFKLGGPPLAASPDC**STISDQNHLLILAN**C**QLSMTGEVGFQAANTKSAANLI**

TSVC**GDGEWTYDDATKTFTVTER**STSVPGVGVGVPGEVPGVGVGVPGVGVPGVGVPGVGVP

VGVPGEVPGVGVGVPGVGVPGVGVPGEVPGVGVGVPGVGVPGLLD **AHIVMVDAYKP**

TKLEWKK

Figure S1. Sequence information of E-MEP-E. The segments in red, green, blue and yellow are GB1N, I27w34f, GB1C and SpyTag, respectively. The four cysteine residues, Cys152, Cys202, Cys218 and Cys245, are underlined.

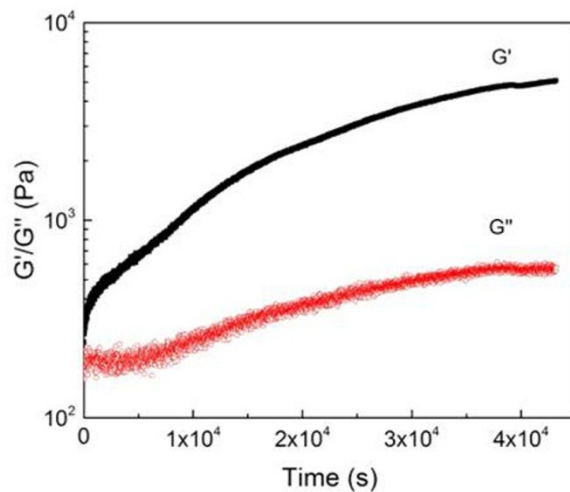


Figure S2. Evolution of storage modulus G' and loss modulus G'' as a function of time after mixing 10 wt% E-MEP-E and Cu^{2+} at an equimolar ratio at room temperature.