

Supporting Information

***The Role of Crystallization and Crosslinking in the Hysteresis Loss of
Vulcanized Eucommia Ulmoides Gum***

Bo Yang^{a,b}, Hui Zhao^a, Chunbo Zhang^c, Xiuqin Zhang^d, Xia Dong^{a,b}, Guoming Liu,^{a,b,*} and Dujin
Wang^{a,b}

^a CAS Key Laboratory of Engineering Plastics, Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China

^b University of Chinese Academy of Sciences, Beijing 100049, China

^c SINOPEC (Beijing) Research Institute of Chemical Industry Co., Ltd., Beijing 100013, China

^d Beijing Key Laboratory of Clothing Materials R & D and Assessment, Beijing Engineering Research Center of Textile Nanofiber, School of Materials Science & Engineering, Beijing Institute of Fashion Technology, Beijing 100029, China

Corresponding author: gmliu@iccas.ac.cn

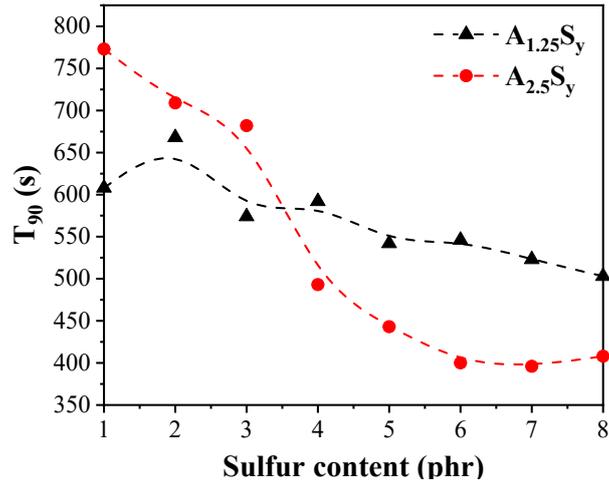


Fig. S1. The effect of sulfur content on the vulcanization characteristics, T_{90} .

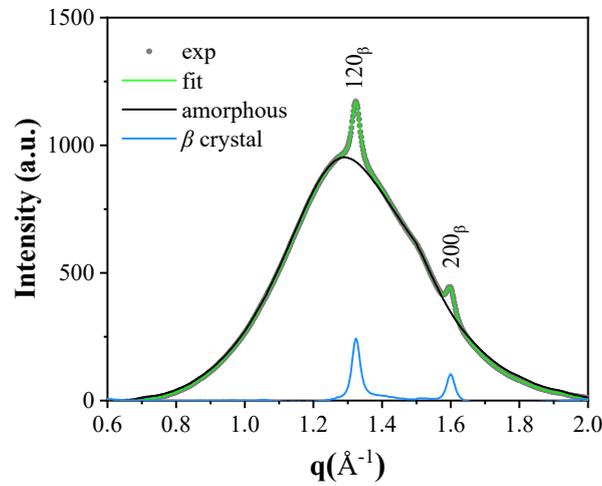


Fig. S2. Example illustrating the fitting of the WAXD profile of EUG vulcanizates.

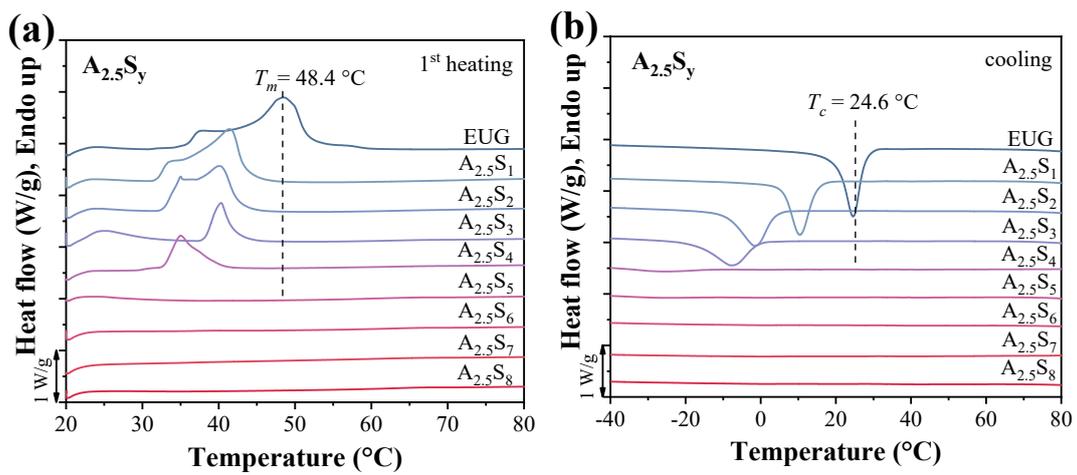


Fig. S3. DSC curves of $A_{2.5}S_y$ samples, (a) the first heating process and (b) the subsequent cooling process.

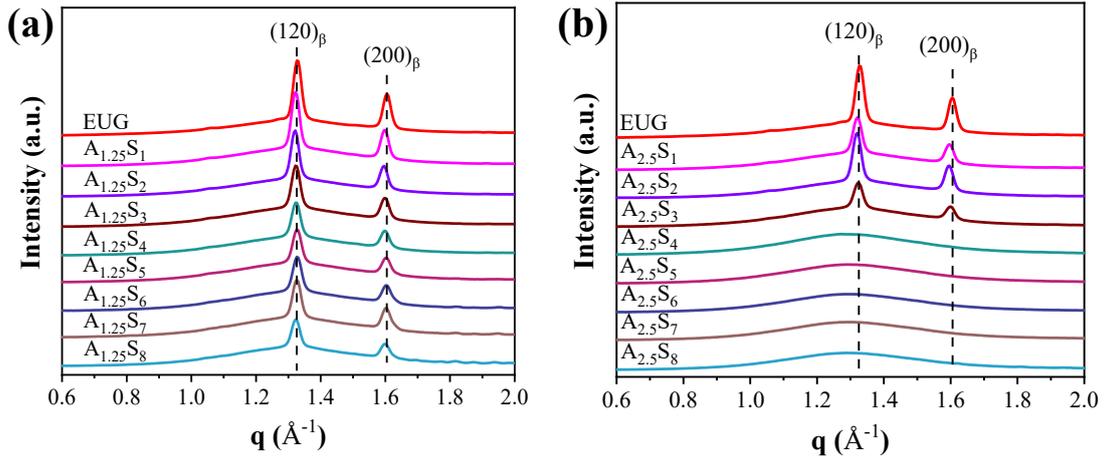


Fig. S4. 1D WAXD profiles of EUG samples, (a) $A_{1.25}S_y$ and (b) $A_{2.5}S_y$.

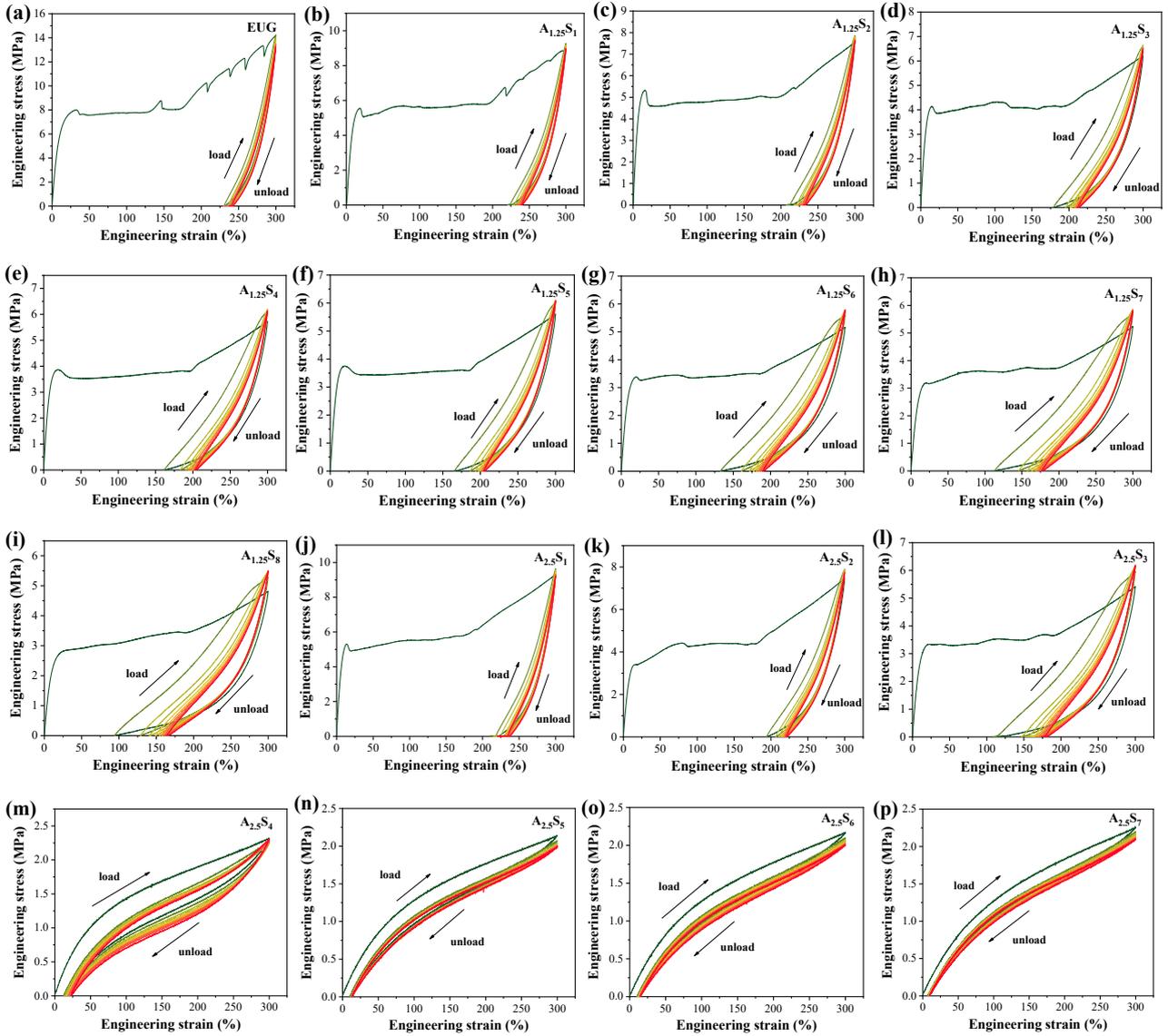


Fig. S5. The tensile loading-unloading curves of EUG samples.

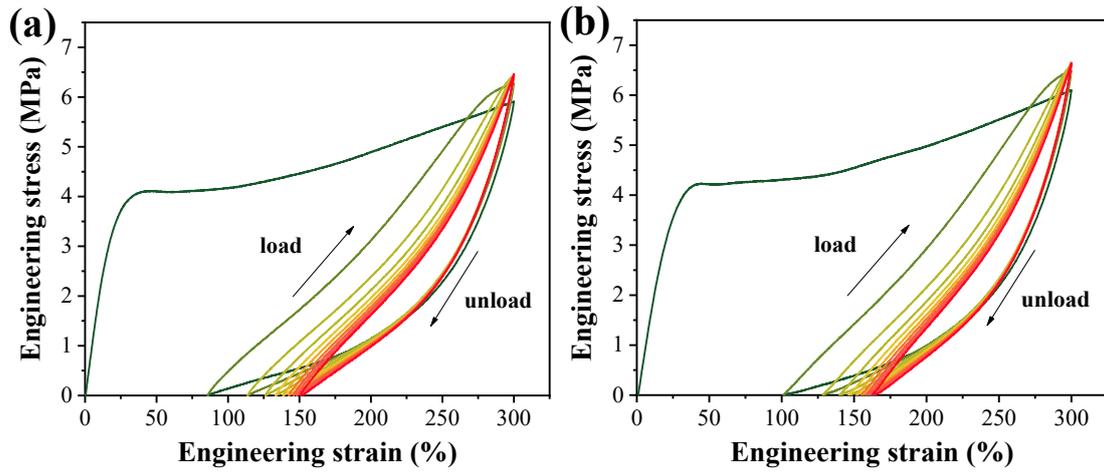


Fig. S6. The stress-strain curves of two additional parallel tests of cyclic deformation of $A_{2.5}S_3$.

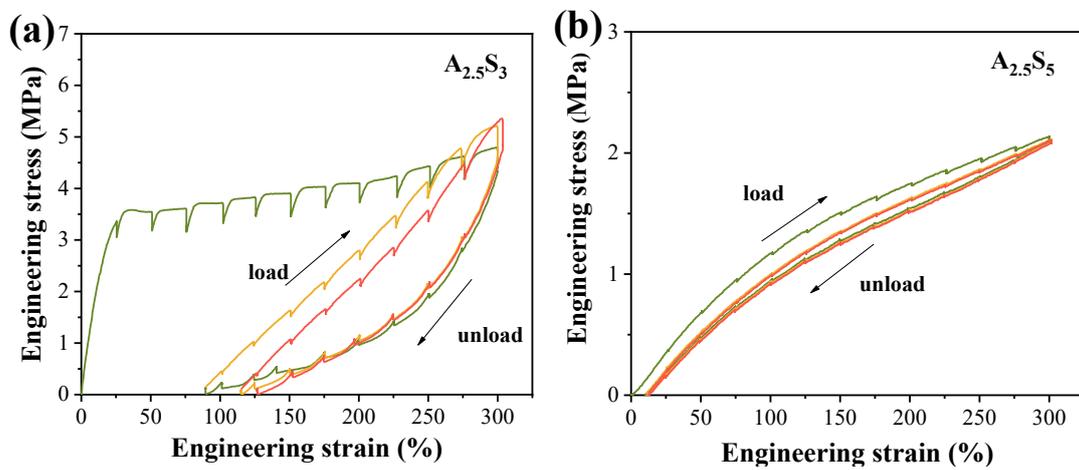


Fig. S7. The stress-strain curves of (a) $A_{2.5}S_3$ and (b) $A_{2.5}S_5$ for cyclic deformation during the *in-situ* WAXD measurements.