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Modified thiol-ene networks: Tuning the glass transition temperature and energy damping capabilities DANIEL SAVIN, OLIVIA MCNAIR, DAVIS BRENT, The University of Southern Mississippi — Utilizing thiol-ene 'click' reactions, it is possible to produce thermoset networks that are highly homogeneous and thus exhibit enhanced energy damping capabilities. This talk will present recent results in the characterization and impact testing of modified thiol-ene networks with tunable physical properties. In particular, we synthesize ternary networks containing (1) bulky side-chain substituents, (2) isocyanate functionality, or (3) dual thiol components to improve control over the glass transition temperature and strain at break. In addition, we present results in the high-impact compression testing to demonstrate the energy damping capabilities of these materials.

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