Supramolecular Arrest and Activation for the Network Formation of Acid Catalyzed Epoxy Polymerization MATTHEW SPENCER, JAMES CRIVELLO, CHANG Y. RYU, Rensselaer Polytechnic Institute — Epoxy resins are limited currently as they must be externally activated by radiation in combination with a photo acid generator or implemented using the more ubiquitous two-component approach. Two component systems begin to react upon mixing are while UV cured epoxies are limited to situations where light can reach the monomer. We propose a novel one-component system that is externally activated with the application of heat. A considerable room temperature lifetime is attributed to the system's ability to sequester super acids through a system of hydrogen bonding coordination. The model system utilizes an alkyl glycidal ether which is made universal by the addition of crown ethers to non-ether epoxy monomers. Our supramolecular-based approach to retard and trigger the epoxy polymerization is likely to enable more widespread applications in microelectronic packaging.