

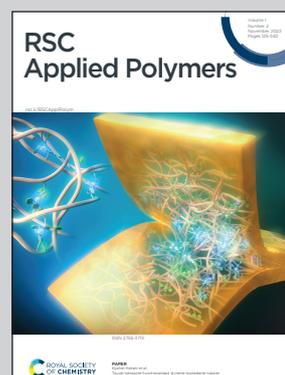


Showcasing research from Professor Derek Patton's laboratory, School of Polymer Science and Engineering, University of Southern Mississippi, Hattiesburg, MS, USA.

Cyclic ketal bridged bisepoxides: enabling the design of degradable epoxy-amine thermosets for carbon fiber composite applications

Degradable epoxy-amine thermosets derived from a series of cyclic-ketal based bisepoxide monomers offer mechanical properties comparable to non-degradable commercial variants yet fully degrade under low pH aqueous conditions, facilitating the recovery of pristine carbon fibers from fiber reinforced polymer composites and the potential recovery and reuse of ketone building blocks. This work illustrates the possibility of achieving balance between real-world application and effective end-of-use material recovery strategies.

As featured in:



See Derek L. Patton *et al.*,
RSC Appl. Polym., 2023, 1, 254.