Elena Moreno-Clavijo, Antonio J. Moreno-Vargas, Ana T. Carmona, Inmaculada Robina (2013). Strain-promoted retro-Dieckmann-Type Condensation on [2.2.2]- and [2.2.1]bicyclic Systems: a Fragmentation Reaction for the Preparation of Functionalized Heterocycles and Carbocycles. *Org. Biomol. Chem. 11*, 7016-7025.

The fragmentation reaction of differently functionalized [2.2.2]- and [2.2.1]bicyclic systems that leads to substituted five membered heterocycles and five/six membered carbocycles is broadly studied. This reaction is carried out through a retro-Dieckmann-type condensation on strained [2.2.1]bicyclic β-ketosulfones and their counterparts β-ketoesters under very mild catalytic acid or basic conditions and short reaction times. The same reaction is also achieved on [2.2.2]bicyclic β-ketosulfones requiring harsher reaction conditions.