**Greening of a chemical preparation**

**Synthesis of dibenzalacetone**

Dibenzalacetone is a useful molecule that can be conveniently synthesized from acetone and benzaldehyde1 using a double Claisen-Schmidt condensation. The preparation is especially interesting from the perspective of increased complexity as a seven carbon molecule and a three carbon molecule are transformed into a seventeen carbon product:



In this experience your goal is to produce 1 gram of the product while minimizing waste and avoiding the use of conditions that are potentially hazardous. You should begin with the *Organic Syntheses* method found online at [tinyurl.com/dibenzalacetone](http://tinyurl.com/dibenzalacetone). This method was originally published in 1932; others have been published for smaller scale synthesis but the purpose of this experience is to develop your own method while using the “12 Principles of Green Chemistry” as guidance.

1 You may wish to use benzaldehyde prepared from benzyl alcohol using the selective oxidation lab procedure.