Cr/Salen-Catalyzed Nazarov Cyclization of Dienones

Significance: Rawal and co-workers describe the highly enantioselective Cr/salen-catalyzed Nazarov cyclization of both activated and unactivated dienones, giving the desired hydridenone products with three contiguous chiral centers in moderate to good yields and stereoselectivities.

Comment: This paper represents the first example of highly enantioselective Nazarov reactions of unactivated dienones. A one-point activation mode was proposed and a counter-clockwise conrotatory cyclization would release the R group into a less sterically congested environment.

Tandem Nazarov cyclization–azination reaction: