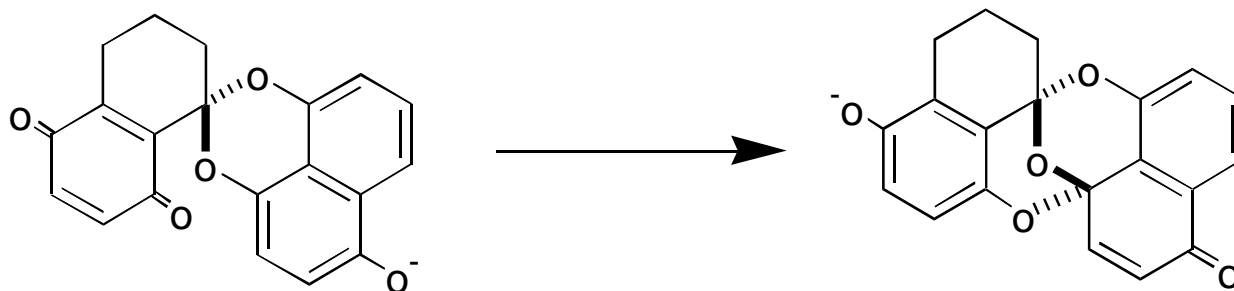


1. (6) Use curved-arrow formalism to show how the process illustrated below occurs. The product is a model for a bizarre class of fungal natural products called preussomerins.



2. (4) Draw structures for (1) DMSO (2) DMF (3) HMPA (4) THF.

3. (4) Rank in terms of leaving group ability: EtO^- , TfO^- , TsO^- , CN^- .

4. (10) Balance the equation below and provide a reasonable mechanism for the transformation.

