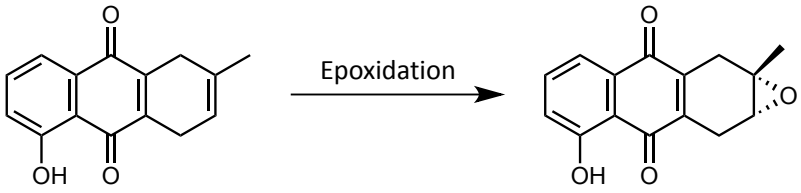
Epoxidation Studies en Route to Altersolanol Derivatives



1,4-diene **epoxide**

We have initiated synthetic studies toward derivatives related to altersolanol P (AP). The altersolanols, and structurally similar compounds, are of interest because they have shown to exhibit biological activity. Specifically, AP has been reported, by Ondeyka et al., to exhibit gram-positive antibacterial activity and inhibited the growth of gram-negative *Haemophilus influenza*; in the same vein of compounds, a study of Altersolanol A, by Mishra et al., revealed *in vitro* cytotoxic activity inducing human cancer cell line death by apoptosis in 34 different human cancer cells and is therefore being investigated as a possible chemotherapeutic. The requisite 1,4-diene starting material has been synthesized in our laboratory. Our short-term goal is to study regioselective epoxidation of the 1,4-diene. One long-term goal is to test all synthesized derivatives for antibacterial activity.

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