

ABSTRACT

The kinetics of the homogeneous Weitz-Scheffer epoxidation reaction in the basic ionic liquid [emim]OH made *in situ* from [emim]Br and sodium hydroxide was investigated. The reaction involved the electron deficient chalcone as the substrate and hydrogen peroxide as the oxidant. The empirical rate law was established to be:

$$rate = k[chalcone]^{0.40}[NaOH]^{0.77}[H_2O_2]^{0.74}$$

The apparent activation energy was determined to be 94.1 kJ/mol. Reaction rates were consistently higher for the homogeneous system than the biphasic system.