

## Convenient Parallel Synthesis Of Alkyl- and Aryl-*S-tert*-Butyl Thioethers.

**Rebecca Norcross, Jessica Stanfield** and Richard W. Fitch, Department of Chemistry and Physics, Indiana State University, 600 Chestnut Street, Terre Haute, IN 47809

While preparing novel cysteine derivatives as oxidation catalysts, we needed *S-tert*-butylcysteine. We also examined acid-promoted *tert*-butylation of thiols using *tert*-butanol as reagent and solvent. While cysteine and aminoethanethiol work well using *t*BuOH in 4M HCl, other thiols fail in the aqueous environment and aerobic conditions. We examined a variety of aliphatic and aromatic thiols in *t*BuOH with H<sub>2</sub>SO<sub>4</sub> catalysis and found that argon sparging and the use of 1 eq of acid led to good yields in a parallel format.

