

COMBINATORIAL SYNTHESIS OF PEPTIDE DERIVATIVES USING SOLID-SUPPORTED REAGENTS. *T. Scott and K.G. Turner**, Department of Chemistry, tms7353@rit.edu, kgtsch@rit.edu

Combinatorial synthesis is a useful tool for rapidly optimizing molecular properties by generating a large and diverse number of compounds from a relatively small number of building blocks. A relatively new area of interest is peptidomimetics, synthesis of peptide-like molecules for pharmaceutical use. Peptide-like residues with a specific or random sequence can be attached to small organic molecules and tested for biological activity, with phenylalanine considered to be a key pharmacophore. This project involves the synthesis and characterization of a small library of tripeptides linked to ethyl *p*-aminobenzoate. The use of solid supported reagents to facilitate isolation and purification has been explored as well as the use of protecting groups.