Propargyl Pentafluorophenyl Carbonate as a Coupling Reagent for Peptide Synthesis

Significance: Developing new coupling reagents that are efficient, sustainable, reduce the number of reaction steps, and minimize waste production is a significant topic in peptide chemistry. In 2002, Chandrasekaran and co-workers invented propargyl pentafluorophenyl carbonate (Poc-OPfp), an efficient reagent for synthesizing N-Poc amino acids, and described its application in peptide synthesis.

Comment: Poc-OPfp was synthesized by the reaction of propargyl chloroformate with pentafluorophenol and used for the synthesis of various N-Poc amino acids and peptides in excellent yields.