The tert-butyloxycarbonyl derivatives of free and partially protected amino acids are obtained in good yields by acylation with 1,3,5-trinitrobenzene. Sterically hindered amino acids also react smoothly. By variation of the pH values, the yield and the speed of the acylations can easily be determined for each amino acid derivative. [The SCI® indicates that this paper has been cited in over 540 publications since 1967.]

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"In 1957, the acid labile tert-butyloxycarbonyl group (BOC) was introduced for N-protection of the amino groups of amino acids in peptide synthesis by McKay and Albertson. Anderson & McGregor. After Schwyzer and his co-workers had developed a generally feasible synthesis for BOC-amino acids using t-butyldicarbonate, this method was widely used for the preparation of the BOC-amino acids. Recently, di-tert-butyldicarbonate has become the reagent of choice for their synthesis, since it is commercially available, easy to handle, and an efficient acylating agent.

"I was really surprised at the acceptance of this paper: the use of tert-butyldicarbonate for the synthesis of BOC-amino acids was known, and the idea was not new. However, I could not find a publication on this topic. Therefore, I decided to publish this paper. Progress in peptide synthesis and especially Merrifield's solid phase method produced a big demand for BOC-amino acid derivatives, of which only a few were commercially available at that time, and any procedure giving better yields was more than welcome. In addition, the paper contained a table with the physical constants of most BOC-amino acids and many colleagues have cited that data. In my opinion these are the reasons why this paper has become a Citation Classic."