New Approaches to Branched $\beta$-Amino $\alpha$-Hydroxy Acids, Taxol Side-chain Analogs

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Dedicated to Professor Branko Stanovnik on the occasion of his 70$^{th}$ birthday

The phenylisothreonine derivatives, taxol side-chain analogs, were synthesized by two routes, one based on the highly stereoselective addition of a phenyl Grignard reagent to the L-threose-derived nitrone 7, and the other using asymmetric $\alpha$-alkoxyallylation of the ketimine 20 with chiral allyl boron reagents.

Key words: Phenylisothreonine, Taxol Side-chain, Diastereoselective Grignard Addition, Keto-Nitrone, $\alpha$-Alkoxyallylation of Imines