

Insights: Publications

Homologation of β -Amino Acids through Quinone-Catalyzed Oxidative Decarboxylation/Mukaiyama-Mannich Addition

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A new method for amino acid homologation by way of formal C–C bond functionalization is reported. This method utilizes a 2-step/1-pot protocol to convert α -amino acids to their corresponding N-protected β -amino esters through quinone-catalyzed oxidative decarboxylation/*in situ* Mukaiyama–Mannich addition. The scope and limitations of this chemistry are presented. This methodology provides an alternative to the classical Arndt–Eistert homologation for accessing β -amino acid derivatives. The resulting N-protected amine products can be easily deprotected to afford the corresponding free amines.

Related People



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