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Title:	Pd(II)-Catalyzed, $\gamma$ -C(sp <sup>2</sup> )-H Alkoxylation in $\alpha$ -Methylbenzylamine, Phenylglycinol, 3-Amino-3-Phenylpropanol Toward Enantiopure Aryl Alkyl Ethers
Authors:	Aggarwal, Yashika (/jspui/browse?type=author&value=Aggarwal%2C+Yashika) Padmavathi, Rayavarapu (/jspui/browse?type=author&value=Padmavathi%2C+Rayavarapu) Singh, Prabhakar (/jspui/browse?type=author&value=Singh%2C+Prabhakar) Arulananda Babu, Srinivasarao (/jspui/browse?type=author&value=Arulananda+Babu%2C+Srinivasarao)
Keywords:	Alkoxylation $\alpha$ -Methylbenzylamine Aryl Alkyl Ethers
Issue Date:	2022
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Citation:	Asian Journal of Organic Chemistry, 11(9), 2200327
Abstract:	This paper reports the synthesis of enantiopure aryl alkyl ethers via the Pd(II)-catalyzed picolinamide-aided $\gamma$ -C(sp <sup>2</sup> )-H alkoxylation of various enantiopure $\alpha$ -alkylbenzylamine derivatives using alcohols. Enantiopure $\alpha$ -methylbenzylamines and amino alcohol substrates such as 2-amino-2-phenylethanol (phenylglycinol) and 3-amino-3-phenylpropanol were subjected to the $\gamma$ -C(sp <sup>2</sup> )-H alkoxylation (etherification) with alcohols using PIDA. $\alpha$ -Alkylbenzylamines and phenylglycinols are valuable building blocks in organic synthesis and medicinal chemistry research areas. Accordingly, this work has enabled the assembling of various enantiopure ortho-alkoxylated $\alpha$ -methylbenzylamine and 2-amino-2-phenylethanol (phenylglycinol) and 3-amino-3-phenylpropanol derivatives containing aryl alkyl ether functionality. We have shown the utility of ortho-alkoxylated $\alpha$ -methylbenzylamine derivatives for assembling enantiopure $\alpha$ -methylbenzylamine-based sulfamoylcarbamates and carboxamides which are structurally related to the bio-active compounds known in the literature. This work demonstrates the substrate scope elaboration in C-H functionalization and etherification through the C-O bond-forming process and synthesis of aryl alkyl ether functionality containing enantiopure $\alpha$ -alkylbenzylamines.
Description:	Only IISERM authors are available in the record
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