Title:	Diastereoselective Pd(II)-Catalyzed sp3 C–H Arylation Followed by Ring Opening of Cyclopropanecarboxamides: Construction of anti β-Acyloxy Carboxamide Derivatives
Authors:	Gopalakrishnan, B. (/jspui/browse?type=author&value=Gopalakrishnan%2C+B.) Mohan, Sruthi (/jspui/browse?type=author&value=Mohan%2C+Sruthi) Parella, R. (/jspui/browse?type=author&value=Parella%2C+R.) Babu, S.A. (/jspui/browse?type=author&value=Babu%2C+S.A.)
Keywords:	Ligand-directed Arylation Diastereoselective Bidentate
Issue Date:	2016
Publisher:	American Chemical Society
Citation:	Journal of Organic Chemistry,81(19),pp.8988-9005.
Abstract:	The diastereoselective Pd(OAc)2-catalyzed, bidentate ligand-directed sp3 C–H activation/arylation followed by ring opening of cyclopropanecarboxamides, which were assembled from cyclopropanecarbonyl chlorides and bidentate ligands (e.g., 8-aminoquinoline and 2-(methylthio)aniline), has been investigated. The treatment of various cyclopropanecarboxamides with excess amounts of aryl iodides in the presence of the Pd(OAc)2 catalyst, AgOAc and AcOH directly afforded the corresponding multiple β-C–H arylated open-chain carboxamides (anti β-acyloxy amides). This method has led to the construction of several anti β-acyloxy amides that possess vicinal stereocenters with a high degree of stereocontrol with the formation of a new C–O bond and three new C–C bonds. A plausible mechanism for the formation of multiple β-C–H arylated open-chain carboxamides from the Pd-catalyzed, bidentate ligand-directed β-C–H arylation and the ring opening of cyclopropanecarboxamides is proposed based on several control experiments. The observed diastereoselectivity and anti stereochemistry of the β-acyloxy amides were ascertained based on X-ray structural analysis of representative β-acyloxy amides.
URI:	https://pubs.acs.org/doi/abs/10.1021/acs.joc.6b01635 (https://pubs.acs.org/doi/abs/10.1021/acs.joc.6b01635) http://hdl.handle.net/123456789/2446 (http://hdl.handle.net/123456789/2446)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need to add pdf.odt (/jspui/bitstream/123456789/2446/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text	View/Open (/jspui/bitstream/12345

Show full item record (/jspui/handle/123456789/2446?mode=full)
(/jspui/handle/123456789/2446/statistics)