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Title:	Ruthenium Catalyzed C–H Amidation and Carbocyclization using Isocyanates: An Access to Amidated 2-phenylphthalazine-1,4-diones and Indazolo[1,2-b]phthalazine-triones
Authors:	Gogia, A. (/jspui/browse?type=author&value=Gogia%2C+A.) Mandal, S.K. (/jspui/browse?type=author&value=Mandal%2C+S.K.)
Keywords:	C–H Activation Transition-metals Carbonylation Catalysis
Issue Date:	2020
Publisher:	Wiley-VCH GmbH
Citation:	Advanced Synthesis and Catalysis, 2020(362), PP. 1-15.
Abstract:	A direct carbocyclization of 2-aryl-2,3-dihydrophthalazine-1,4-diones is achieved using isocyanates as carbonyl source via Ru(II)-catalyzed sequential ortho-amidation followed by intramolecular nucleophilic substitution, delivering substituted indazolo[1,2-b]phthalazine-triones in good-to-excellent yields. For ortho-substituted 2-aryl-2,3-dihydrophthalazine-1,4-diones, the corresponding amidated products were also isolated in excellent yields by modifying the reaction parameters. Application of isocyanates as carbonyl source, high functional group tolerance on the two coupling partners and diverse chemical transformation of the synthesized fused and functionalized phthalazinones are the key highlights of the work.
URI:	http://hdl.handle.net/123456789/3401 (http://hdl.handle.net/123456789/3401) https://onlinelibrary.wiley.com/doi/10.1002/adsc.202001146 (https://onlinelibrary.wiley.com/doi/10.1002/adsc.202001146)
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