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Title:	The Barbier-Type Allylation/Lactamization Cascade Route to Isoindolinones and the Heck-Type Annulation Route to Isoindolo[2,1-a]quinolines
Authors:	Reddy, C. (/jspui/browse?type=author&value=Reddy%2C+C.) Babu, S.A. (/jspui/browse?type=author&value=Babu%2C+S.A.) Padmavathi, R. (/jspui/browse?type=author&value=Padmavathi%2C+R.)
Keywords:	Allylation Lactams Nitrogen heterocycles Synthetic methodszinc
Issue Date:	2016
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Abstract:	In this paper, we report the construction of pharmacologically relevant isoindolinones and isoindolo[2,1-a]quinolines through the Zn-mediated Barbier-type allylation/lactamization sequential reactions and intramolecular Heck annulation reactions, respectively. The Zn-mediated Barbier-type allylation/lactamization sequential reactions of imine systems derived from alkyl 2-formylbenzoates afforded a library of N-substituted 3-allyl-isoindolinone scaffolds. Then, this route was applied to assemble various N-(2-haloaryl)-3-allyl-isoindolinone derivatives, which were subsequently subjected to the Pd-catalyzed intramolecular Heck-type annulation reaction to afford the corresponding isoindolo[2,1-a]quinoline frameworks. We have shown a formal synthesis of the bio-active isoindolo[2,1-a]quinoline system 1 g by synthesizing the dione system 12, which was an intermediate in the Ishihara's scheme pertaining to the synthesis of the bio-active isoindolo[2,1-a]quinoline system 1 g.
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