Category

Key words

palladium imidazoles

Metal-Mediated Synthesis

C. PÉREZ-CAAVEIRO, J. P. SESTELO, M. M. MARTÍNEZ,* L. A. SARANDESES* (UNIVERSIDADE DE CORUÑA, SPAIN)

Triorganoindium Reagents in Selective Palladium-Catalyzed Cross-Coupling with Iodoimidazoles: Synthesis of Neurodazine

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Palladium-Catalyzed Cross-Coupling of Triorganoindium Reagents

Selected examples:

Significance: The authors demonstrate that triorganoindium reagents react selectively with *N*-benzyl-2,4,5-triiodoimidazole under palladium catalysis to give the corresponding C-2-arylated coupling products in good yields. These products can further be used in a subsequent double cross-coupling to afford trisubstituted imidazoles in good yields.

98% yield

Comment: This methodology was further applied to the synthesis of neurodazine, a biologically active compound which is able to specifically induce neurogenesis of non-pluripotent myoblasts and the cells derived from mature human skeletal muscle.

90% yield

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