M. CHIARUCCI, R. MOCCI, L.-D. SYNTRIVANIS, G. CERA, A. MAZZANTI, M. BANDINI*
(UNIVERSITY OF BOLOGNA, ITALY)

Merging Synthesis and Enantioselective Functionalization of Indoles by a Gold-Catalyzed Asymmetric Cascade Reaction

Angew. Chem. Int. Ed. **2013**, *52*, 10850–10853.

Oxazinoindoles via Gold-Catalyzed Stereoselective Cascade Reaction

Significance: The authors developed a gold-catalyzed hydroamination followed by an asymmetric nucleophilic allylic substitution cascade to access oxazino[4,3-*a*]indoles in good yields and enantioselectivities. Owing to pharmacologically active indole alkaloids, this rapid synthesis and asymmetric decoration of the polycyclic indolyl core is highly important.

SYNFACTS Contributors: Hisashi Yamamoto, Mahiuddin Baidya
Synfacts 2014, 10(1), 0068 Published online: 13.12.2013
DOI: 10.1055/s-0033-1340458; Reg-No.: H16513SF

Comment: Amazingly, the stereodifferentiating event in this gold-catalyzed asymmetric domino process takes place at the late stage, which is somewhat unusual and more challenging. Extensive mechanistic studies support the stepwise S_N2'-type mechanism for the final allylic alkylation ring closure (cycle II).