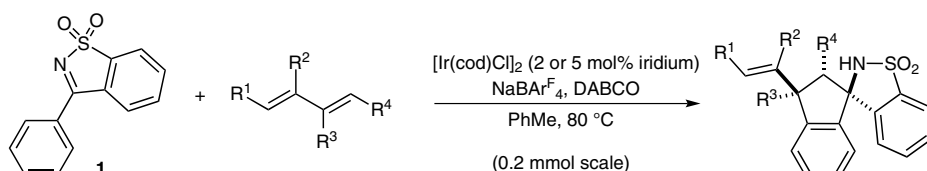


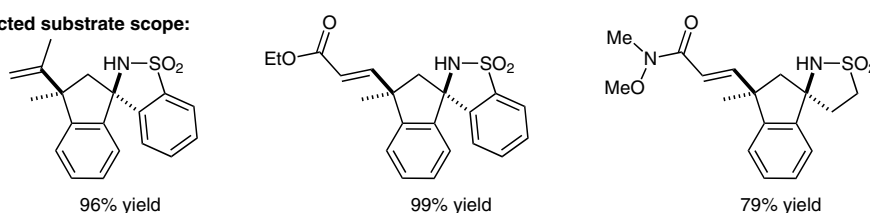
T. NISHIMURA,\* Y. EBE, T. HAYASHI (KYOTO UNIVERSITY, JAPAN AND NATIONAL UNIVERSITY OF SINGAPORE, SINGAPORE)  
Iridium-Catalyzed [3+2] Annulation of Cyclic *N*-Sulfonyl Ketimines with 1,3-Dienes via C–H Activation  
*J. Am. Chem. Soc.* **2013**, *135*, 2092–2095.

## Synthesis of Aminoindanes via a Novel C–H Activation–[3+2]-Annulation Strategy

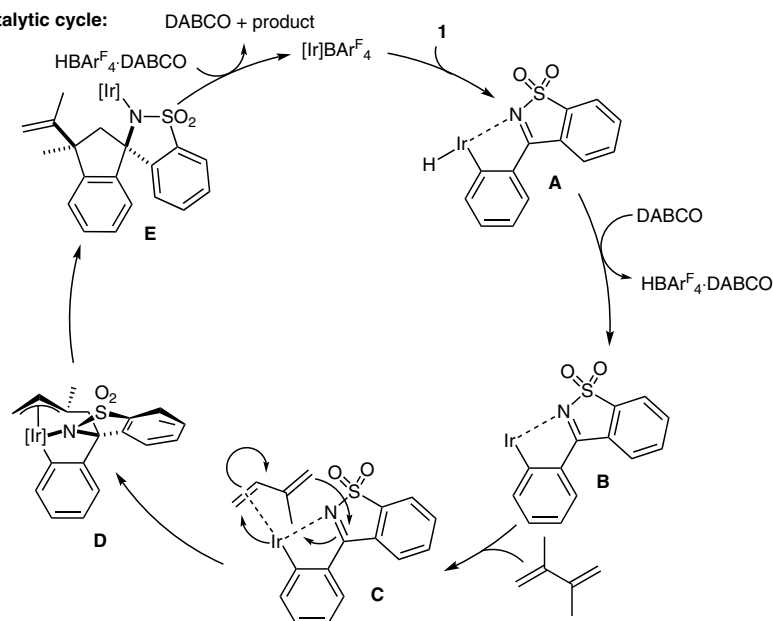
Overall transformation:



Selected substrate scope:



Proposed catalytic cycle:



**Significance:** Directed *ortho* C–H functionalization has become a hot topic in organic synthesis in recent years. A novel extension is reported by Nishimura and co-workers, who accomplished an iridium-catalyzed annulation of *N*-sulfonyl ketimines with 1,3-dienes to provide complex aminoindane derivatives.

**Comment:** This transformation tolerates a wide variety of 1,3-diene substrates, and products are afforded in good to excellent yields and high regio- and stereoselectivity. Key to the proposed mechanism is the intramolecular aryl–iridium– $\pi$ -allyl intermediate **D**.

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Category

Metal-Catalyzed  
Asymmetric  
Synthesis and  
Stereoselective  
Reactions

Key words

iridium

[3+2] annulation

C–H activation

**SYNFACTS**  
*of the month*