

Correction to “Nickel-Catalyzed Asymmetric Reductive Cross-Coupling To Access 1,1-Diarylalkanes”

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Supporting Information

Pages 5684 and 5685, Table of Contents, and Supporting Information. The stereochemistry of L1, depicted as the (S,S)-

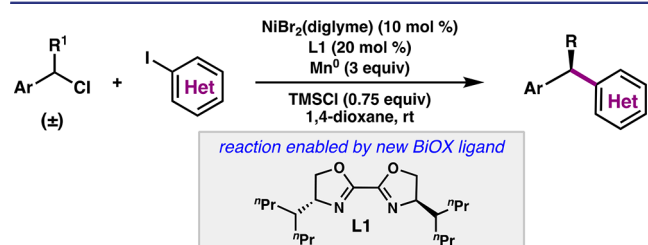
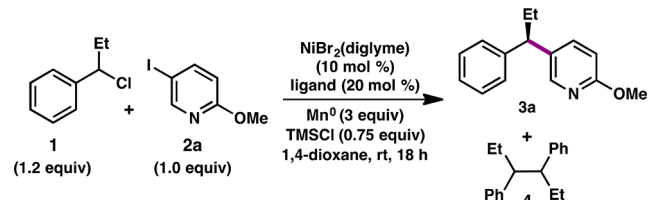


Figure 1. Ni-catalyzed enantioselective reductive cross-coupling to prepare diarylalkanes.

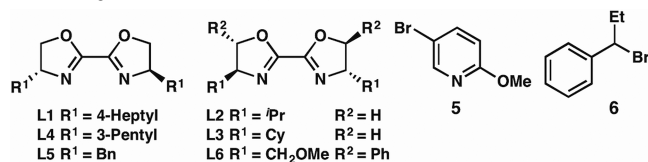
Table 1. Optimization of Reaction Conditions^a



entry ^a	ligand	deviation from standard conditions	yield 3a (%) ^b	yield 4 (%) ^b	ee 3a (%) ^c
1	L1	none	84	8	90
2	L2	–	22	30	68 ^d
3	L3	–	64	21	75 ^d
4	L4	–	74	20	80
5	L5	–	4	0	60
6	L6	–	31	9	86 ^d
7	L1	Zn ⁰ instead of Mn ⁰	0	26	–
8	L1	TDAE instead of Mn ⁰	3	0	66
9	L1	TFA instead of TMSCl	0	25	–
10	L1	DMA instead of dioxane	14	13	67
11	L1	5 instead of 2a	72	24	89
12	L1	6 instead of 1	8	37	81

^aReactions conducted under N₂ on 0.05 mmol scale for 18 h.

^bDetermined by ¹H NMR versus an internal standard. ^cDetermined by SFC using chiral stationary phase. ^d(S)-3a is formed.



enantiomer in Figure 1, Table 1, the TOC graphic (identical to Figure 1), and the Supporting Information of the original publication, was incorrect. (R,R)-L1 was used in this study. The stereochemistry of (R,R)-L1 has been confirmed by single-crystal X-ray diffraction; the X-ray diffraction data and CIF file for (R,R)-L1 have been added to the Supporting Information. The corrected TOC graphic/Figure 1 is shown here.

(R,R)-L4 and (R,R)-L5 were also used in Table 1 and incorrectly depicted as (S,S)-L4 and (S,S)-L5 in the original publication. To reflect that different enantiomeric series of catalysts were used, Table 1 has been updated to indicate that entries 2, 3, and 6 produce (S)-3a.

This correction does not change the stereochemical assignment of the diarylalkane products, or the conclusions of the Communication. The stereochemistry of the products was assigned by obtaining an X-ray structure of diarylalkane 3k, and the rest of the compounds were assigned by analogy.

ASSOCIATED CONTENT

Supporting Information

The Supporting Information is available free of charge on the ACS Publications website at DOI: 10.1021/jacs.8b05247.

Detailed experimental procedures, compound characterization data (corrected) (PDF)

¹H and ¹³C NMR spectra (corrected) (PDF)

Crystallographic data for (R,R)-L1 (CIF)