

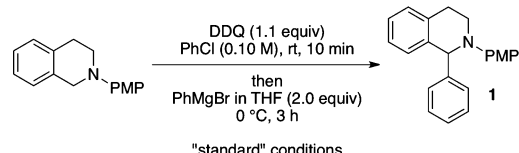
Correction to Simple and Direct sp^3 C–H Bond Arylation of Tetrahydroisoquinolines and Isochromans via 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone Oxidation under Mild Conditions

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In entry 3 of Table 1, a co-oxidant was corrected.

Table 1. DDQ-Mediated C–H Bond Arylation of THIQ^a

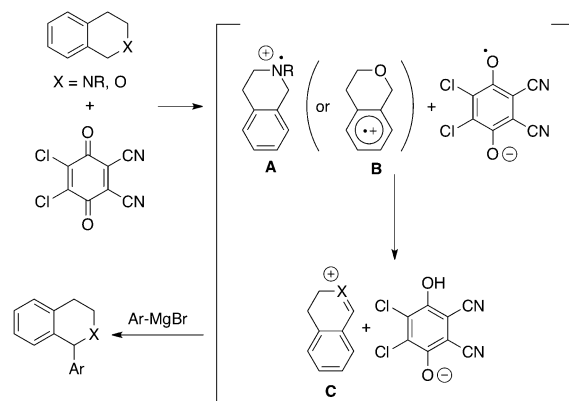


entry	variation from the "standard" conditions	yield of 1 (%) ^b
1	none	>99 (95) ^c
2	no DDQ	0
3	DDQ (10 mol %), MnO ₂ (1.1 equiv)	8
4	CuBr (10 mol %), TBHP (1.1 equiv)	0
5	CPh ₃ BF ₄ , instead of DDQ	43
6	chloranil, instead of DDQ	56
7	<i>o</i> -chloranil, instead of DDQ	90
8	O ₂ (1 atm), instead of DDQ	10
9	CAN, instead of DDQ	11
10	NHPI, instead of DDQ	0
11	<i>m</i> CPBA, instead of DDQ	0
12	PhMgBr, ^d instead of PhMgBr	44
13	PhMgCl, ^e instead of PhMgBr	81
14	PhZnI or PhZnBr, ^e instead of PhMgBr	0
15	PhH, instead of PhCl	75
16	PhMe, instead of PhCl	71
17	CHCl ₃ , instead of PhCl	42
18	THF, instead of PhCl	69
19	DME, instead of PhCl	19
20	addition of HQME (1.1 equiv)	51

^aAll data are the average of two experiments. ^bThe yield was determined by ¹H NMR analysis versus a calibrated 1,4-bis(trifluoromethyl)-benzene as an internal standard. ^cIsolated yield. ^dEt₂O solution was used. ^eTHF solution was used.

In Scheme 4, a DDQ radical anion and a DDHQ anion were corrected.

Scheme 4. Plausible Mechanism for DDQ-Mediated C–H Bond Arylation



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