Ketones
Q 0350

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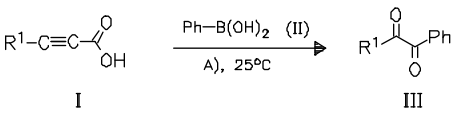
44- 096

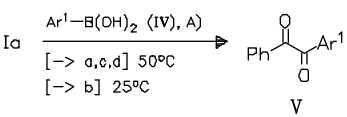
Mild $Mn(OAc)_3$-Mediated Aerobic Oxidative Decarboxylative Coupling of Arylboronic Acids and Arylpropiolic Acids: Direct Access to Diaryl 1,2-Diketones.— Labeling experiments show that both oxygen atoms of the 1,2-diketone originate from air. A radical pathway is proposed for this reaction. — (LV, W.-X.; ZENG, Y.-F.; ZHANG, S.-S.; LI, Q.; WANG*, H.; Org. Lett. 17 (2015) 12, 2972-2975, http://dx.doi.org/10.1021/acs.orglett.5b01265 ; Sch. Pharm. Sci., Sun Yat-Sen Univ., Guangzhou 510006, Peop. Rep. China; Eng.) — H. Haber



I III

A). air, AcOK, $Mn(O-Ac)_3 \cdot 2H_2O$, cyclohexane/H_2O (10:1), [40 h]

a R^1: –Ph 73%
b R^1: –C6H4–O–Me 68%
c R^1: –C6H3(O–Me)2 36%
d R^1: –C6H4–Cl 34%
e R^1: –C6H4–NO_2 56%
f R^1: –thienyl 54%
g R^1: $-(CH_2)_4-Me$ 0%



V

a Ar^1: 2-Cl-C6H4 46%
b Ar^1: 4-MeO-C6H4 27%
c Ar^1: 4-CHO-C6H4 18%
d Ar^1: 4-MeO2C-C6H4 42%