Benzofuran derivatives
R 0070

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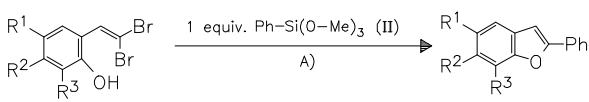
A Highly Efficient Tandem Reaction of 2-(gem-Dibromovinyl)phenols(thiophenols) with Organosilanes to 2-Arylbenzofurans(thiophenes). — The reaction tolerates a wide range of functional groups and is not sensitive to steric effects. The use of 3 equiv. of TBAF is crucial. Comparable results are obtained when silanes (II) or (IV) are applied. Attempts to use the method to prepare indole derivatives from anilines fail. Double phenylation takes place in the reaction of phenol (VII) using 2 equiv. of (II). — (LIU, J.; CHEN, W.; JI, Y.; WANG*, L.; Adv. Synth. Catal. 354 (2012) 8, 1585-1592, http://dx.doi.org/10.1002/adsc.201100875 ; Dep. Chem., Huaibei Norm. Univ., Huaibei, Anhui 235000, Peop. Rep. China; Eng.) — Y. Steudel



I III

A): air, 3 equiv. Bu_4NF, $Pd(O–Ac)_2/PPh_3$ (1:2) (cat.), NMP, 70–80°C

a R^1, R^2, R^3: –H	76%
b R^1: –Cl ; R^2, R^3: –H	87%
c R^1: $–NO_2$; R^2, R^3: –H	61%
d R^1: –O–Me ; R^2, R^3: –H	83%
e R^1: –tBu ; R^2, R^3: –H	88%
f R^1, R^3: –Me ; R^2: –H	79%
g R^1, R^2: –H ; R^3: –Ph	81%
h R^1, R^2: –H ; R^3: –tBu	59%
i R^1, R^2: –H ; R^3: –O–Me	79%
j R^1: –H ; R^2, R^3: –Me	67%