Citation:

A Desilylation and a One-Pot Desilylation-Oxidation of Aliphatic *tert*-Butyldimethylsilyl Ethers Using Catalytic Quantities of $PdCl_2(CH_3CN)_2$
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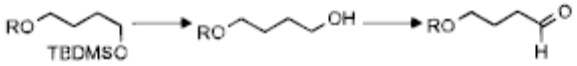
Tables:

Table 1. Times and Yields for the Desilylation and Oxidation of TBDMS Ethers

starting material	time for desilylation (h)	alcohol (% yield)	time for oxidation (h)	aldehyde or ketone (% yield)[b]
1. **8**	14	**9** (91)[a]	6	**10** (86)
2. **11**	14	**12** (80)[a]	6	**13** (76)
3. **14**	16	**15** (73)[a]	4	**16** (79)
4. **17**	12	**18** (82)[a]	10	**19** (69)
5. **20**	18	**21** (86)[a]	22	**22** (80)
6. **23**	13	**24** (80)[c]	7	**25** (75)
7. **26**	16	**27** (78)[c]	22	**28** (78)
8. **29**	14	**30** (78)[a]	20	**31** (70)
9. **32**	20	**33** (82)[c]	7[d]	**34** (10)

[a] Isolated yields using acetone, water (5 equiv), 75 °C, 6 h. [b] Isolated yields using DMF:acetone (1:1), water (5 equiv), 120 °C, 9 h, and then add 10 mol % PPh_3, 2-bromomesitylene (1.1 equiv). [c] GC yields using the procedure in footnote *b* above. [d] Addition of another 5 mol % catalyst did not affect the yield.

Table 2. Compatibility of the Desilylation–Oxidation Conditions with Other Protecting Groups of Alcohols



entry	starting material	alcohol (% yield)[a]	aldehyde (% yield)[a]
1	**35**, R = $SiEt_3$	**36** (56)	**37** (40)
2	**38**, R = Si(*i*-Pr)$_3$	**39** (80)	**40** (70)
3	**41**, R = Si(*t*-Bu)Ph_2	**42** (81)	**43** (78)
4	**44**, R = MOM	**45** (78)[b]	**46** (60)
5	**47**, R = Bn	**48** (80)	**49** (66)
6	**50**, R = THP	**51** (61)[b]	**52** (–)[c]
7	**53**, R = Ac	**54** (65)[b]	**55** (55)

[a] Isolated yields. [b] Diol was present by GC. [c] NMR indicated decomposition has occurred.

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