

Supplementary information

Efficient anodic allylation and benzylation of carbons using allyl and benzyl trimethylsilanes

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Scheme 1. Electrooxidation of allyl and benzyl silanes in the presence of nucleophiles

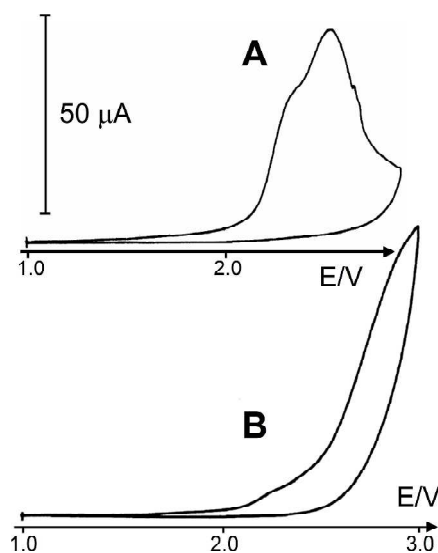
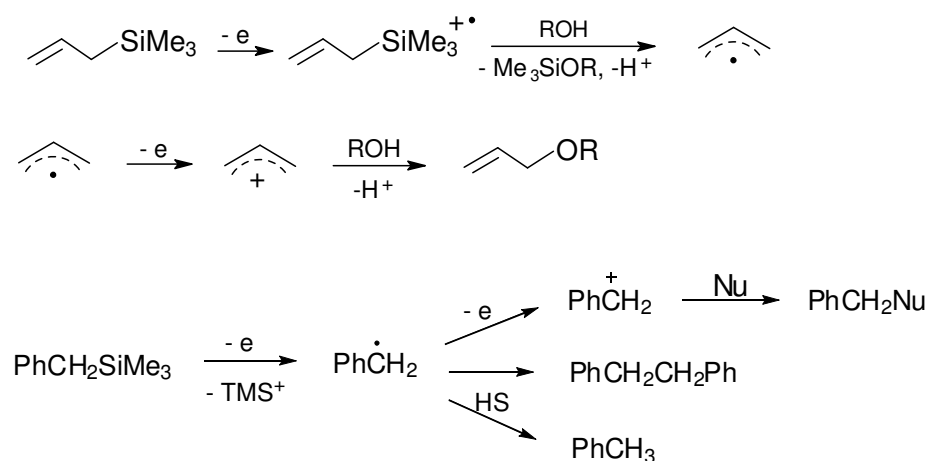


Figure 6. Voltammetry of PhTMS (8.5 mmol L⁻¹) in ACN/0.1 M TMABF₄. Scan rate: 50 mV s⁻¹. (A) Oxidation at a smooth GC electrode. Surface area: 0.2 mm². (B) Oxidation at a smooth platinum electrode. Surface area: 0.8 mm².

For other references on carbon materials, also see:

- [1] Harris P.J.F., *Philosophical Magazine*, **2004**, 84, 3159-3167.
- [2] Bernier P., Lefrant S., *Le carbone dans tous ses états*, Gordon and Breach Science Publishers, Amsterdam, **1997**, and references cited.
- [3] Besenhard, J. O. *Carbon* **1976**, 14, 111–115.
- [4] Gogotsi Y., Libera J. A., Kalashnikov N., Yoshimura M., *Science*, **2000**, 290, 317-320.

For cathodic charge of GC, also see:

- [1] Bernard G., Simonet J., *J. Electroanal. Chem.*, **1980**, 112, 117-125.
- [2] Dano, C.; Simonet, J. *J. Electroanal. Chem.* **2004**, 564, 115–121.

For TMS as "super-proton" leaving group and electrooxidation of allyl and benzyl silanes, also see:

- [1] Jones G. R., Landais Y., *Tetrahedron*, **1996**, 52, 7599.
- [2] Weber W.P., *Silicon reagents for organic synthesis*. Springer, Berlin, **1983**, 173-205.
- [3] Bock H., Alt H., *Angew. Chem.*, **1967**, 79/21, 934-935.
- [4] Bock H., Kaim W., *J. Amer. Chem. Soc.* **1980**, 102/13, 4429-4438.
- [5] Ricci A., Degl'Innocenti A., Fiorenza M., Taddei M., Spartera M.A., Walton D.R.M., *Tetrahedron Lett.*, **1982**, 23/5, 577-578.
- [6] Baciocchi E., Giacco T.D., Rol C., Sebastiani G.V., *Tetrahedron Lett.*, **1989**, 30, 3573.
- [7] Koizumi T., Fuchigami T., Nonaka T., *Electrochim. Acta*, **1988**, 33/11, 1635-1644.