

Alcohols
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Aerobic Palladium-Catalyzed Dioxygenation of Alkenes Enabled by Catalytic Nitrite. — Catalytic nitrite is found to enable carbon-oxygen bond-forming reductive elimination from unstable alkyl palladium intermediates, providing dioxygenated products from alkenes. A variety of functional groups are tolerated, and high yields are observed with many substrates, also for a multigram-scale reaction. Nitrogen dioxide, which could form from nitrite under the reaction conditions, is demonstrated to be a potential intermediate in the catalytic cycle. Furthermore, the reductive elimination event is probed with ^{18}O -labeling experiments, which demonstrate that both oxygen atoms in the difunctionalized products are derived from one molecule of acetic acid. — (WICKENS, Z. K.; GUZMAN, P. E.; GRUBBS*, R. H.; *Angew. Chem., Int. Ed.* 54 (2015) 1, 236-240, <http://dx.doi.org/10.1002/anie.201408650>; Div. Chem. Chem. Eng., Calif. Inst. Technol., Pasadena, CA 91125, USA; Eng.) — U. Scheffler

