A General Metal-Assisted Synthesis of α-Halo Oxime Ethers from Nitronates and Nitro Compounds

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Abstract

An approach to the synthesis of α-halo oxime ethers from readily accessible nitronates and nitro compounds via bis(oxy)enamines is reported. A key step of the strategy involves the unprecedented reaction of bis(oxy)enamines with a metal (Co, Zn, Mg, Mn) halide that acts as both a promoter and halide (Br, I, Cl) source. A variety of cyclic and acyclic ethers of α-halo oximes, including previously unavailable trimethylsilyl ethers of α-iodo oximes, have been synthesized in good-to-high yields.

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