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OR04 – Some Strategies on the C–H Activation Avoiding External Oxidants

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The transition metal catalyzed direct functionalization of unreactive C–H bonds represents one of the most powerful tools for sustainable syntheses and opens a new route to pharmaceuticals and natural products. A general drawback is requirement of stoichiometric external oxidant, such as Cu, Ag salts and BQ, to complete the catalytic cycle, which would produce a stoichiometric amount of the reduced external oxidant as waste and reduce the overall "greenness" of the process. Therefore, we have been interested in developing some strategies to avoid the external oxidants, such as "internal" oxidant as a directing group and starting materials, and redox process of substrates.

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