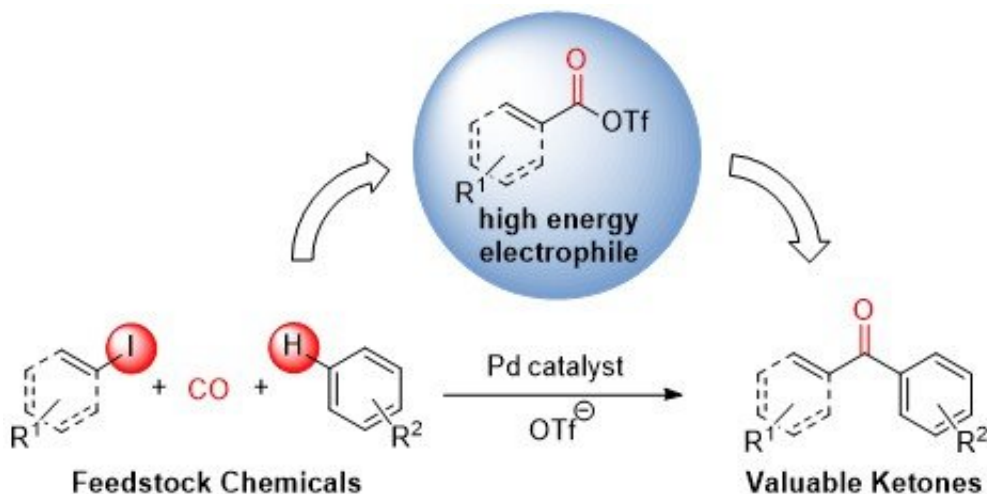


A greener way to make ketones

January 29 2018



Credit: McGill University

Researchers at McGill University have discovered a new, more environmentally friendly way to make ketones, an important chemical ingredient in pharmaceuticals. While ketones are found in a wide range of useful chemicals, they are commonly prepared through energy-intensive, multi-step technologies that create significant chemical waste.

In an article published online last month in *Nature Chemistry*, the McGill scientists demonstrate how [carbon monoxide](#), a widely available by-product of combustion, can instead be used to form high-energy chemicals that react directly with benzene to generate [ketones](#).

"This approach could offer a new and green method to activate readily

available, but inert hydrocarbons, and use them to make a variety of valuable products," says McGill chemistry professor Bruce Arndtsen, senior author of the study.

More information: R. Garrison Kinney et al. A general approach to intermolecular carbonylation of arene C–H bonds to ketones through catalytic aroyl triflate formation, *Nature Chemistry* (2017). [DOI: 10.1038/nchem.2903](https://doi.org/10.1038/nchem.2903)

Provided by McGill University

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