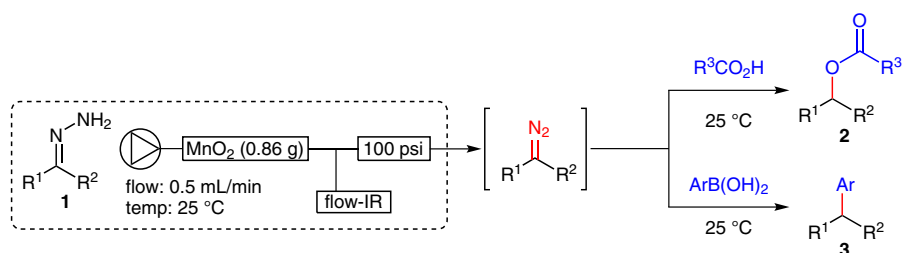
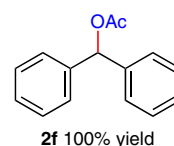
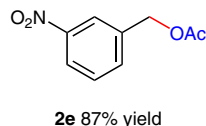
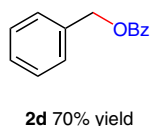
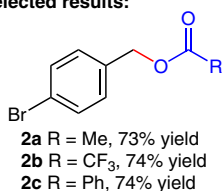


Flow-Generated Diazo Compounds and Their Use in Cross-Coupling



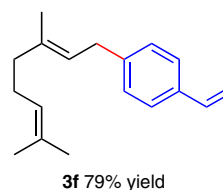
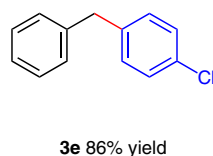
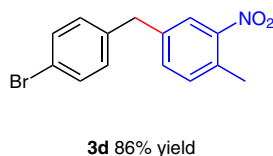
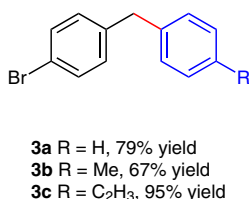
Esterification:

Selected results:



Coupling reaction:

Selected results:



Significance: Unstable diazo compounds were generated as reactive intermediates in a flow system using a MnO₂-packed cartridge with Hünig's base. The resulting diazo compounds reacted with carboxylic acids and arylboronic acids under flow conditions to give the corresponding esters **2a–f** in 72–100% yield and the C–C coupling products **3a–f** in 67–95% yield, respectively.

Comment: The generated diazo compounds were detected and titrated by in-line IR spectroscopy. The MnO₂-packed cartridge was regenerated by flowing *tert*-butyl hydroperoxide in dichloromethane and reused twice with a slight loss of activity.

Synfact
of the month