

# Iron, Cobalt and Nickel Catalysts for C-H Functionalization

**Prof. Paul Chirik**  
Department of Chemistry  
Princeton University



The selective functionalization of carbon-hydrogen bonds has been a long-standing challenge in chemical synthesis. Our group has been exploring two different variants of this problem. In commodity hydrocarbons such as toluene, is it possible to distinguish the subtly different C-H bonds in the molecule with a transition metal catalyst? A second area has been developing C-H functionalization reactions in complex molecular environments such as those found in drug molecules that contain an array of functional groups and may undergo conformational or other chemical changes in solution. My lecture will describe our work on iron, cobalt and nickel catalysts to promote a host of C-H functionalization reactions. A theme throughout the lecture will be the role of fundamental organometallic chemistry plays in catalyst design and the application of our work to drug discovery and registration.

Date: Wed, Jan. 23, 2019  
Time: 4:30-5:30 pm  
Location: 208 Clark Hall

Students, meet the speaker over  
coffee and cookies in the Bennett  
Conference room at 3:30 pm