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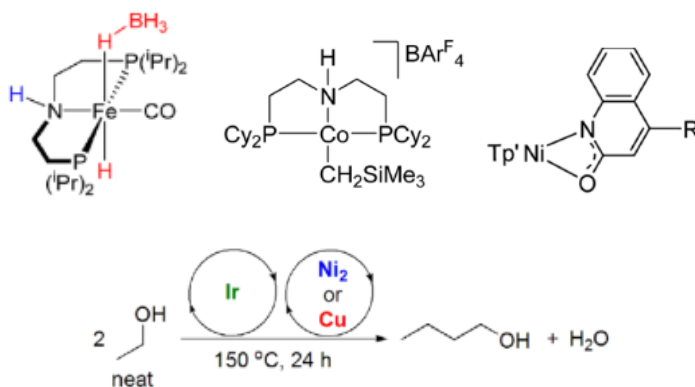
OR02 – Heterolytic C–H and N–H/O–H Activation by
First Row Transition Metal Complexes

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Several first row transition metal catalysts employing iron, cobalt, and nickel with non-innocent ligands have been synthesized and their ability to catalyze dehydrogenation of alcohols and amines, as well as their ability to hydrogenate ketones and quinolines, has been comparatively evaluated. The scope and mechanism(s) of these reactions have been examined. Also, the use of an alcohol dehydrogenation catalyst along with an Aldol condensation catalyst has led to a new route to convert ethanol directly and cleanly to 1-butanol.



References

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