

Prof. Liviu Mirica of Washington University

“The organometallic reactivity of high-valent Pd and Ni complexes”

Abstract: High-valent Pd and Ni complexes have been proposed to play an important role in a number of C-C and C-heteroatom bond formation reactions. In this context, a series of stable mononuclear Pd(III) and Pd(IV) complexes supported by multidentate N-donor ligands have been synthesized and oxidative reactivity was investigated. In addition, novel organometallic Ni(III) and Ni(IV) complexes relevant to cross-coupling reactions have been isolated recently, which allowed for reactivity to be probed directly. The intermediacy of such high-valent Pd and Ni species in other organometallic reactions will also be discussed.