Transition Metal-Catalyzed Carbon-Carbon and Carbon- Heteroatom Bond-Forming Processes: Progress, Applications and Mechanistic Studies

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In recent years, cross-coupling methodology has become part of the everyday repertoire of synthetic organic chemists. We have been interested, for some time, in the development of efficient, general and practical catalysts for such chemistry.

This lecture will detail our progress in this endeavor. Included will be: 1) Studies on structure-reactivity relationships of ligands. 2) Mechanistic studies of these processes. 3) Our latest progress in catalyst development. 4) Applications of the chemistry.