Tuning the Strength and Reactivity of Metal-Ligand Bonds: Reactive Nitrides and Stable Carbides in Catalytic Multiple-Bond Metathesis Reactions

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Date: Tuesday, March 31, 2009  
Time: 10:00-11:00 a.m.  
Place: EMSL Auditorium  
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Modification of the ancillary ligand set can be used to tune the relative strength of metal-element multiple bonds rationally. New nitride complexes of Mo and W that are activated toward triple bond metathesis are described. In the case of W, pairwise nitride/alkylidyne exchange can be reversible, leading to a new catalytic reaction, nitrile-alkyne metathesis.