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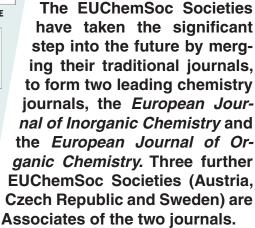












COVER PICTURE

The cover picture shows the disruption of amidoand alkoxo-to-metal π -donation because of a filled $d\pi$ manifold, which occurs for metal centers in low oxidation states and which renders the anionic amido, alkoxo and related ligands highly reactive. The low oxidation states decrease the predilection toward metal-center reduction and, as a result, tend to promote "even-electron" chemistry over odd-electron radical chemistry that is based on net single-electron reduction of the metal. For RuII and CuI complexes, evidence for the enhanced reactivity of the heteroatomic ligands is derived from acid/base reactions as well as from nucleophilic additions. The combination of a Lewis acid metal center and a basic/ nucleophilic heteroatomic ligand (amido, hydroxo, alkoxo, etc.) can be exploited for the activation of substrates that possess polar and nonpolar bonds, for example for metalmediated C-H activation and for catalytic hydroamination and hydroalkoxylation of activated olefins. Details are presented in the Microreview by T. B. Gunnoe on p. 1185 ff.

