ADDITIONS AND CORRECTIONS

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Richard R. Schrock: Catalytic Reduction of Dinitrogen to Ammonia at a Single Molybdenum Center

Page 955. This Account was printed without an Abstract. The Abstract is provided below:

This Account explores the catalytic reduction of dinitrogen by molybdenum complexes that contain the [HIPTN $_3$ N] 3 -ligand ([HIPTN $_3$ N] 3 -) = [(HIPTNCH $_2$ CH $_2$) $_3$ N] 3 -, where HIPT = 3,5-(2,4,6-i-Pr $_3$ C $_6$ H $_2$) $_2$ C $_6$ H $_3$) at room temperature and pressure with protons and electrons. A total of 7–8 equiv of ammonia is formed out of \sim 12 possible (depending upon the Mo derivative employed). No hydrazine is formed. Numerous X-ray studies of proposed intermediates in the catalytic cycle suggest that N $_2$ is being reduced at a sterically protected, single Mo center operating in oxidation states between Mo^{III} and Mo^{VI}. Subtle variations of the [HIPTN $_3$ N] 3 - ligand are not as successful as a consequence of an unknown shunt in the catalytic cycle that consumes reduction equivalents to yield (it is proposed) dihydrogen.

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