This article deals with the nitrogen-rich compounds like the one in the figure above. The extensive N-N bonding in these complexes makes them thermodynamically unstable with respect to forming very stable N$_2$ gas. The stability of N$_2$ accounts for its abundance in nature. The N-N bonds of the ligand must become the discrete N•N bonds of the product N$_2$ (N$_2$ MO’s were discussed in Ch. 2). As this gas forms, electrons are given to the iron(III) ions in the solid leading to their reduction to iron metal (Redox reactions like this were discussed in Ch. 5). The escaping N$_2$ gas causes the metal that is formed to be highly porous, a metal foam.