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 N₂ gas. The stability of N₂ accounts for its abundance in nature (this is discussed in Ch 15). 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 8). The escaping N₂ gas causes the metal that is formed to be highly porous, a metal foam.