

Electrochromic compounds and reduction-oxidation

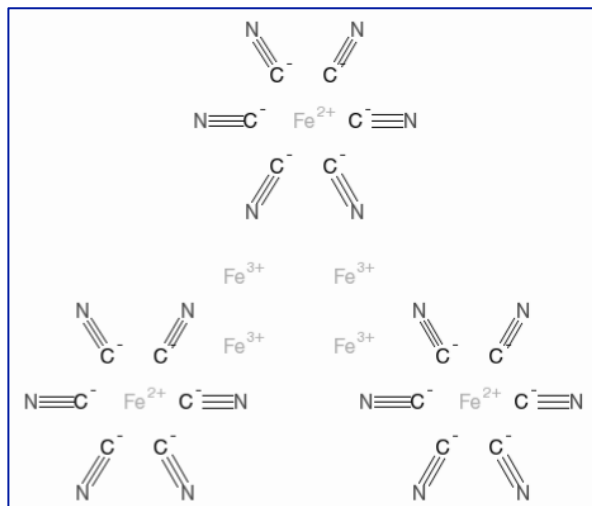
1. Last semester we discussed the origin of the terms oxidation and reduction. Give a brief summary of that discussion.

Prussian Blue

[<https://www.acs.org/content/acs/en/molecule-of-the-week/archive/p/prussian-blue.html>]

1. CN⁻ is called cyanide, or the cyanide anion. Draw the Lewis dot structure for this polyatomic anion.

2. This compound is written as Fe₄[Fe(CN)₆]₃, it's named iron(III)hexacyanoferrate(II), and sometimes it's called ferric ferrocyanide. What's the connection between the terms ferric- and ferro- and the notation Fe(III) and Fe(II)?



3. Which iron cation is more oxidized, Fe(III) or Fe(II)?

Ni(OH)₂

1. What is the oxidation state of Ni in Ni(OH)₂?
2. Draw a Lewis dot structure for nickel hydroxide.
3. The electron configuration for Ni²⁺ is [Ar] 4s⁰3d⁸. How does the following figure help you understand this configuration for Ni(II)?

