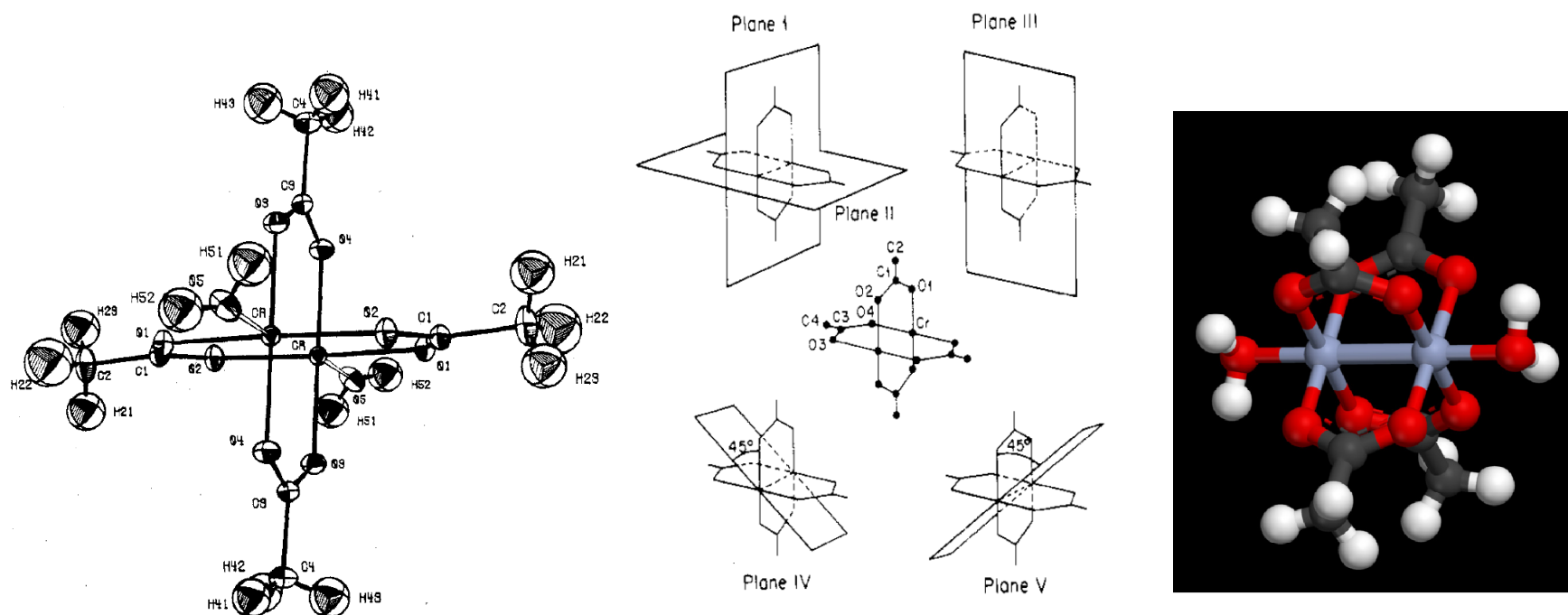


Chromium(II) Acetate

- Chromium(II) acetate dihydrate, $\text{Cr}_2(\text{O}_2\text{CCH}_3)_4(\text{H}_2\text{O})_2$, was discovered in 1844.
- It has long been regarded as unusual for a Cr(II) compound because it is brick-red and diamagnetic.
- It is the longest-known example of a family of compounds that have the general formula $\text{Cr}_2(\text{O}_2\text{CR})_4\text{L}_2$, which have the following structure:



- Each Cr(II) ion has 4 d electrons but the complex is found to be diamagnetic which is explained by the formation of a quadruple bond between the two metal ions. The Cr-Cr bond distance in a range of these quadruply bonded species has been found to vary between 1.95-2.55 Å.

