Ex 2.2

At a particular temperature, called the Curie temperature, the magnetic behavior of a substance changes. The Curie temperature is substance-dependent. Below the Curie temperature, the magnetic behavior of a substance is dictated by the interactions between its constituent atoms. For example, if the individual atoms tend to align parallel to one another, then they will do so; if they tend to be anti-aligned, they will do so. Above the Curie temperature, the magnetic behavior of a substance is dictated by external magnets. For example, if there is a strong magnet nearby, all of the atoms will tend to align with this magnet; if there is no magnet nearby, they will be randomly oriented. This randomness is due to thermal vibrations. (