

Homework 6

Due on: Friday, February 28

Problem 1

Do the first exercise (about the molecule CCl_4) of section 5 of the notes on molecular vibrations. No derivations, just write down the character table in the same form as in table 4 of the notes. You do not need to construct the last column of table 4 for the CCl_4 molecule. (This column gives information about the transformation properties of x^j and $x^j x^k$ which is needed to discuss infrared and Raman spectra.) Identify the motions of the normal modes, and the multiplets which they form.