MS2040\_01 Introduction to crystal structures and diffraction theories

Homework #8 Due: 12/25 after class

You are encouraged to organize a study group to solve the problem set.

1. Estimate the diffraction intensities of the first 5 diffraction peaks of CsCl structure. You should include the structure factor, multiplicity factor, and Lorentz-Polarization factor. Go to the website “<http://it.iucr.org/Cb/ch6o1v0001/sec6o1o1.pdf>” to look at the table of atomic form factor. (You can only access the website using the IP within the university.)

2. Suppose that an electron beam of 100 eV normal incident onto the Ni(110)c(2x2)-O surface. Please draw the LEED pattern.