Due date: 1 December 2016

PRELIMINARY REPORT 1

Each student will prepare his/her own report. Spectrograms and diffractograms will be available at the course website (http://mse307.cankaya.edu.tr) for downloading before the laboratory session. Note that the sample which will be examined during the laboratory sessions and the sample that you will examine for your reports are different. The sample for the laboratory session will be mixed and compacted elemental powders, whereas that for your reports will be the (same) sample sintered at a given temperature.

Elemental Analysis by Energy Dispersive Analysis

1. State the aim of this report.

2. Briefly give information regarding the instrument (**XRD**, **SEM**, **EDS** etc.) and details of how the measurements are carried out.

3. Results
Give spectrograms and carry out evaluation. **Index the spectrograms**, i.e. ***identify elements*** and ***characteristic radiation.***

4. Discuss your results and give conclusions.

5. References
State your references using the following format;
For example, if you use a formula or an information or a comment from a book or an article, give the reference information under "References" title as below with a number:

Books;
[5] B.D. Cullity and S.R. Stock "Elements of X-Ray Diffraction", Third Edition, Prentice Hall, 2001, pp 45-47.
Papers;
[8] J.E. Smith and A. Peterson "A new method of crystal structure determination in non-cubic compounds"; Acta Crystallographica, 1996, Vol 35 pp 48-67.
Web page:
[13] http://www.navy.com/crystal, Institute of Materials Science, Department of Navy, New York.