TGA Pre-class preparation questions

1. Look up calcium oxalate in the literature or an on-line database. Write the equation for the enthalpy of formation and provide the tabulated enthalpy of formation with the equation using units of kJ/mol.

2. Describe the decomposition processes of the calcium oxalate using chemical equations. Estimate the enthalpies of the two decomposition steps from tabulated data. Please express these enthalpies both in kJ/mol and in J/g.

3. Fit the mock data in the Excel spread sheet using non-linear methods described in the Non-linear Fitting Background. Alternatively you may use Igor. You will need a macro that contains the fitting function (see laboratory notes).