

Literature Assignment

Log onto Web of Science (<http://apps.webofknowledge.com/>), and perform a literature search to identify two high-impact papers from the literature that have used one of the experimental-techniques discussed in the morning's lectures. Provide a citation for the two papers you have identified, and write a brief summary of each paper (not more than 250 words per paper), describing the main findings of the work, and discussing how the technique was used to that study the particular material system. Then compare how the techniques were used in the two papers, and identify similarities or differences in the experimental approaches (not more than 150 words).

(6 Marks)

Lab-report 1.

Upload a report on **one** of the experiments that you have performed in the **first** set of lab-rotations. This should be brief, interesting and informative, and written in a clear, scientific style. Please include appropriate figures, plots, spectra, images and photographs summarising the key data that you have taken. There is no formal length limit to this assignment, however when figures are included, your work should typically be contained to within 10 pages.

For each part of the experiment, briefly describe

- (1) The objectives of the experiment
- (2) The methods used in the experiment
- (3) Your main results and data analysis
- (4) Your conclusions

(12 Marks)

Lab-report 2.

Upload a report on **one** of the experiments that you have performed in the **second** set of lab-rotations. This should be brief, interesting and informative, and written in a clear, scientific style. Please include appropriate figures, plots, spectra, images and photographs summarising the key data that you have taken. There is no formal length limit to this assignment, however when figures are included, your work should typically be contained to within 10 pages.

For each part of the experiment, briefly describe

- (1) The objectives of the experiment
- (2) The methods used in the experiment
- (3) Your main results and data analysis
- (4) Your conclusions

(12 Marks)