

Statement of Intent

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Experiment: Skin Depth

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The Statement of Intent should address the following four points about the experiment you are about to undertake:

- 1. What is the aim of the experiment?
- 2. What measurements will be made and how?
- 3. How will the final result be obtained from the experimental data?
- 4. What are the main safety concerns with the experiment and precautions that should be taken?

The statement should be reviewed by a member of staff before you begin the experiment.

The aim of the experiment is to measure the dependance on frequency of Skin depth in varying metal cylinders.

The frequency and potential difference will be measured. Measurements will be made by taking readings of frequency from a signal generator and potential difference and current from multimeters.

The final result will be obtained by comparing the potential divided by the frequency to the inverse of the frequency squared.

The main safety concerns are dealing with electricity. It is important to make sure the apparatus is connected correctly and to be aware of the dangers with misuse of the equipment.