

Most common errors in „Magnetic field” lab reports

A) General / obvious

1. Parts of the lab instruction tasks not covered.
2. Experiment's aim or the way it was carried out remains unexplained.
3. Report is missing a clear structure (chapters, subtitles, proper order, etc.)

B) Data treatment & presentation

1. Erroneously calculated numbers or units.
2. Graphs' axes incorrectly defined.
3. Quantized data graphed as continuous (lines instead of points).
4. Tables or graphs missing labels.
5. Inconsistent number of digits behind the decimal dot, like: $x = 1.2 \pm 0.0001$ or:
 $k = 5.19089e-5 \pm 3.86696996518e-7$.
6. Missing units.

C) Specific to „Magnetic field”

1. Coil data unexplained (symbols undefined or formulae absent).
2. Linear fit of $B(H)$ missing.
3. No scheme of the circuit and therefore using undefined variables in derivation of formulae in part 3.2.d) .
4. Stating that $Z/R = 1/\cos(\phi)$.
5. Wrong integral in part 3.3.3 (BdH instead of HdB) or no explanation of how the integral was actually calculated.
6. Missing figure of the circuit in which the Faraday's law is tested.
7. Results of the Faraday's law test unexplained.