

普通物理實驗報告

實驗名稱： _____

班級：

組別：

| | | | |
|---------|-------|-------|-------|
| 組員姓名： | _____ | _____ | _____ |
| 基本分數 50 | | | |
| 實驗數值 20 | | | |
| 理論數值 10 | | | |
| 圖表 10 | | | |
| 問題 10 | | | |
| 其他評分 | | | |
| 總評分： | | | |

【記錄】

一、導線受力與電流的關係－磁場固定【將數據繪於方眼紙#1 中】

二、導線受力與導線長度的關係－磁場固定【將數據繪於方眼紙#2 中】

$m_0 =$

| 電流迴路 | 電流 I | 0.5 A | 1.0 A | 1.5 A | 2.0 A | 2.5 A |
|-----------------------------|------------------|-------|-------|-------|-------|-------|
| $SF - 40$ $\ell = 1.2cm$ | m | | | | | |
| | $F = (m - m_0)g$ | | | | | |
| $SF - 37$ $\ell = 2.2cm$ | m | | | | | |
| | $F = (m - m_0)g$ | | | | | |
| $SF - 39$ $\ell = 3.2cm$ | m | | | | | |
| | $F = (m - m_0)g$ | | | | | |
| $SF - 38$ $\ell = 4.2cm$ | m | | | | | |
| | $F = (m - m_0)g$ | | | | | |
| $SF - 41$ $\ell = 6.4cm$ | m | | | | | |
| | $F = (m - m_0)g$ | | | | | |
| $SF - 42$ $\ell = 8.4cm$ | m | | | | | |
| | $F = (m - m_0)g$ | | | | | |

三、導線受力與磁場強度的關係－電流固定 $I = 2.0A$ 【將數據繪於方眼紙#3 中】

| 電流迴路 | 磁鐵數 | 1 | 2 | 3 | 4 | 5 | 6 |
|---------------------------|------------------|---|---|---|---|---|---|
| SF - 40 $\ell = 1.2cm$ | m_0 | | | | | | |
| | m | | | | | | |
| | $F = (m - m_0)g$ | | | | | | |
| SF - 37 $\ell = 2.2cm$ | m_0 | | | | | | |
| | m | | | | | | |
| | $F = (m - m_0)g$ | | | | | | |
| SF - 39 $\ell = 3.2cm$ | m_0 | | | | | | |
| | m | | | | | | |
| | $F = (m - m_0)g$ | | | | | | |
| SF - 38 $\ell = 4.2cm$ | m_0 | | | | | | |
| | m | | | | | | |
| | $F = (m - m_0)g$ | | | | | | |
| SF - 41 $\ell = 6.4cm$ | m_0 | | | | | | |
| | m | | | | | | |
| | $F = (m - m_0)g$ | | | | | | |
| SF - 42 $\ell = 8.4cm$ | m_0 | | | | | | |
| | m | | | | | | |
| | $F = (m - m_0)g$ | | | | | | |

【討論】