近代物理實驗規定事項

實驗成績計算：

實驗報告(組員輪)	60%
操作測驗(一指定一抽籤)	20%
期末測驗(筆試)	20%

課程準備報告(算一份實驗成績)

實驗報告內容

首頁

實驗標題

組員：XXX(執筆者)

XXX

指導老師：

指導助教：

實驗日期：

摘要

接續包括

目的

原理

實驗步驟

數據

分析與討論

參考書籍：

Eisberg Resnick "Quantum Physics of Atoms, Molecules, Solids, Nuclei, and Particles"

Arya "Fundamentals of Atomic Physics"

Arthur Beiser "Concepts of Modern Physics"

Kittel "Introduction to Solid State Physics"

李雅明 "半導體的故事" (新新聞文化事業出版社)

公告事項及講義下載網頁：140.120.11.1

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參考資料

Units commonly used to describe radioactivity

Unit	Abbreviation	Deinition
Counts per minute or second	c.p.m. c.p.s.	The recorded rate of decay
Disintegration per minute or second	d.p.m. d.p.s.	The actual rate of decay
Curie	Ci	The number of d.p.m. equivalent to 1g of radium (3.7×10^{10} d.p.s.)
Millicurie	mCi	Ci$\times10^{-3}$ or 2.22×10^{9} d.p.m.
Microcurie	μCi	Ci$\times10^{-6}$ or 2.22×10^{6} d.p.m.
Becquerel (SI unit)	Bq	1 d.p.s.
Gigabecquere (SI unit)	GBq	10^{9} Bq or 27.027 mCi
Megabecquere (SI unit)	MBq	10^{6} Bq or 27.027 μCi
Electron volt	eV	The energy attained by an electron accelerated through a potential difference of 1 volt. Equivalent to 1.6×10^{-19} joules
Roentgen	R	The amount of radiation which produces 1.61×10^{15} ion pairs per kg or air (2.58×10^{4} coulombs kg $^{-1}$)
Rad	rad	That dose which gives an energy absorption of 0.01 joule kg $^{-1}$ (J kg $^{-1}$)
Gray (SI unit)	Gy	That dose which gives an energy absorption of 1 joule per kilogram. Thus, 1 Gy = 100 rad.
Rem	rem	That amount of radiation which gives a dose in man equivalent to 1 rad of X-rays.
Sievert (SI unit)	Sv	That amount of radiation which gives a dose in man equivalent to 1 gray of X-rays. Thus, 1 Sv = 100 rem

1Gy (戈雷) = 1 J/kg = 1000 erg/g = 100 rad (雷得)

1 Sv (西弗) = 1 J/ kg = 1000 erg/g = 100 rem (侖目)