

## Magnetic Materials

Dia-, Para-, and Ferromagnetism - Curie Temperature

## Electromagnets

## Bohr Magneton - Hysteresis

## Transformers

impedance matching

## RC and RL circuits - AC and DC

car coils - Ruhmkorff

## LRC circuits - Dissipated Power - Resonance

resonance width - metal detectors

impedance - reactance - tuning of radio

## EM Waves - Traveling and Standing Waves

string and wind instruments

resonance frequencies

distance determinations using radar and laser pulses

carrier wave - amplitude modulation

## Poynting Vector

## Radiation Pressure

comet tails

## Polarization of EM Radiation

linear, elliptical and circular

## Snell's Law

refraction - total reflection - fiber optics

## Index of Refraction

speed of light

## Dispersion - Prisms

## Huygen's Principle

## Illusion of Colors

primary colors - color triangle - Benham top

Edwin Land's famous color experiment

## 磁物质

前缀 Dia - , Para - 以及铁磁物质 - 居里温度

## 电磁

波尔磁子 - 滞后

## 变压器

阻抗匹配

RC RL 回路 AC DC

车辆缠绕 - 伦可夫感应线圈

LRC 回路 - 失去动力 - 共振

共振宽度 - 金属检测

阻抗 - 共振 - 收音机调谐

EM 波 - 行波和驻波

弦乐器和管乐器

共振频率

应用雷达和激光脉冲测定距离

载波 - 调幅

坡印亭矢量

辐射压[强]

彗尾

EM 辐射的极化

线性的，椭圆的，圆的

斯涅耳 (Snell) 定律

折射 - 全反射 - 纤维光学

折射率

光速

色散 - 棱镜

Huygen 定理

色彩幻觉

红,黄,蓝三原色 - 原色三角 - Benham top

Edwin Land 的著名色彩实验