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安全时刻

NO. 018
2024年8月1日

辐射安全通识

辐射: 一种能量。它被分为非电离辐射和**电离辐射（电磁波或粒子）。**

电磁波谱

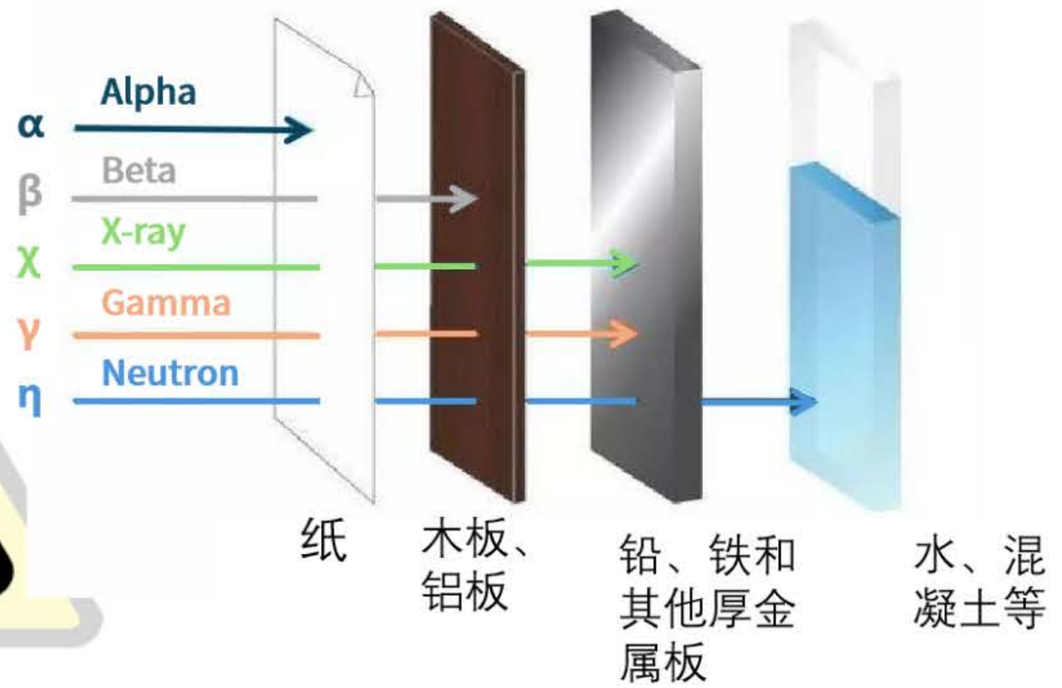
频率越大，波长越小，能量越大

γ射线	X射线		紫外光	可见光	红外线	微波	无线电波
$<10^{-3}$nm	10^{-3}nm ~ 10nm		10nm~400nm	400nm~760nm	760nm ~ 1mm	1mm~1m	1m <
电离辐射			**非电离辐射**				

香港科技大学（广州）目前涉及的电离辐射种类：

1. X射线，如利用X射线成像的CT，X衍射仪
2. β射线，如非密封放射性物质: β (^{3}H, ^{14}C etc.)
3. α射线，如放射源: α(Am-241 etc.)

电离辐射的渗透和吸收



Scan for more information

Safety Moment

NO. 018
AUG 1, 2024

General Knowledge of Radiation Safety

Radiation: A kind of energy. It can be classified into Non-ionizing radiation and ionizing radiation (in which either an electromagnetic wave or a particle).

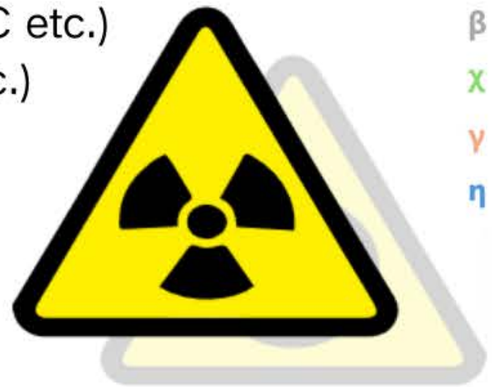
Electromagnetic Spectrum

The higher the frequency, the smaller the wavelength and the stronger the energy

γ-rays	X-rays		UV	Visible	Infrared ray	Microwaves	Radio waves
$<10^{-3}$nm	10^{-3}nm～10nm		10nm~400nm	400nm~760nm	760nm～1mm	1mm~1m	1m<
ionizing radiation			Non-ionizing radiation				

Common types of ionizing radiation currently involved at HKUST(GZ):

1. X-ray, such as Radiation Generator : CT, X-ray diffractometer
2. Beta rays, such as Unsealed Source: β (^{3}H, ^{14}C etc.)
3. α rays, such as Sealed Source: α (Am-241 etc.)



Ionization,Penetration and Absorption