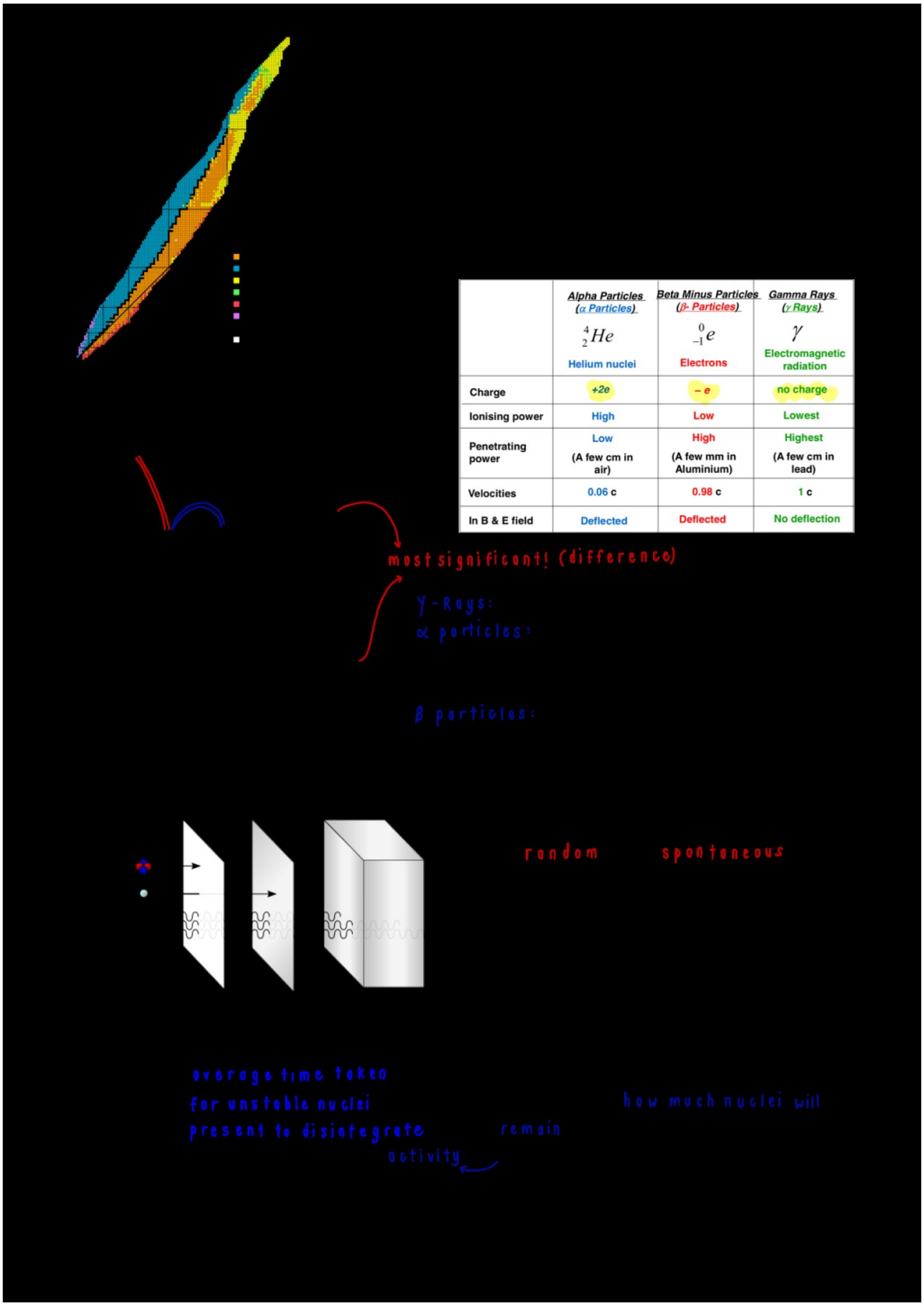
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Alpha Particles (α Particles)
$^{4}_{2}He$
Helium nuclei
Beta Minus Particles (β- Particles)
$^{0}_{-1}e$
Electrons
Gamma Rays (γ Rays)
γ
Electromagnetic radiation
Charge
+2e
− e
no charge
Ionising power
High
Low
Lowest
Penetrating power
Low (A few cm in air)
High (A few mm in Aluminium)
Highest (A few cm in lead)
Velocities
0.06 c
0.98 c
1 c
In B & E field
Deflected
Deflected
No deflection
most significant! (difference)
γ-Rays:
α particles:
β particles:
random
spontaneous
average time taken for unstable nuclei present to disintegrate
how much nuclei will remain
activity