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## Contents

<b>List of laws of radioactivity</b>	<b>2</b>
Affect of external factors in radioactivity . . . . .	2
Types of process expressed as radioactivity . . . . .	2
Possibility of emission of two distinct entities of radiation at the same time . . .	2
Alpha particle in radioactivity . . . . .	2
Beta particle in radioactivity . . . . .	2
Change in atomic number on emitting alpha particle . . . . .	2
Change in mass number on emitting alpha particle . . . . .	2
Change in atomic number on emitting beta particle . . . . .	3
Change in mass number on emitting beta particle . . . . .	3
Change in atomic number on emitting gamma particle . . . . .	3
Change in mass number on emitting gamma particle . . . . .	3
General expression of reaction in release of alpha radiation . . . . .	3
Specific example in reaction in release of alpha radiation . . . . .	3
Atomic number of uranium . . . . .	3
Mass number of uranium . . . . .	3
Atomic number of thorium . . . . .	3
Mass number of thorium . . . . .	4
General expression of reaction in release of beta radiation . . . . .	4
Specific example in reaction in release of beta radiation . . . . .	4
General expression of reaction in release of gamma radiation . . . . .	4
Specific example in reaction in release of gamma radiation . . . . .	4
Atomic number of strontium . . . . .	4
Mass number of strontium . . . . .	4

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## List of laws of radioactivity

- No external influence
- Emission of single radiation entity at a time

### Affect of external factors in radioactivity

Null

### Types of process expressed as radioactivity

Spontaneous

### Possibility of emission of two distinct entities of radiation at the same time

Null

### Alpha particle in radioactivity

Helium nucleus

### Beta particle in radioactivity

Electrons of nuclear origin

### Change in atomic number on emitting alpha particle

Decreases by 2

### Change in mass number on emitting alpha particle

Decreases by 4

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**Change in atomic number on emitting beta particle**

Increases by 1

**Change in mass number on emitting beta particle**

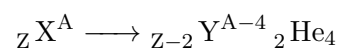
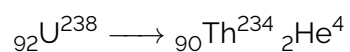
Remains same

**Change in atomic number on emitting gamma particle**

Remains same

**Change in mass number on emitting gamma particle**

Remains same

**General expression of reaction in release of alpha radiation****Specific example in reaction in release of alpha radiation****Atomic number of uranium**

92

**Mass number of uranium**

238

**Atomic number of thorium**

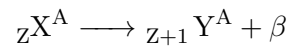
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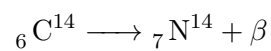
**Mass number of thorium**

234

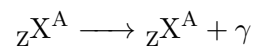
**General expression of reaction in release of beta radiation**



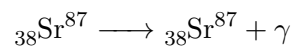
**Specific example in reaction in release of beta radiation**



**General expression of reaction in release of gamma radiation**



**Specific example in reaction in release of gamma radiation**



**Atomic number of strontium**

38

**Mass number of strontium**

87