

Revision – Radioactivity 1

1. State what is meant by isotopes.

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2. Why are some nuclei radioactive?

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3. What is an alpha particle?

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4. State the changes that happen in a nucleus when the nucleus emits a beta particle (beta-minus particle).

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Only Edexcel GCSE (9-1) students need to answer question 5.

5. State the changes that happen in a nucleus when the nucleus emits a beta-plus particle.

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6. How do the atomic number and mass number change during each of the following radiations?

(a) During the emission of an alpha particle

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(b) During the emission of a beta particle (beta-minus particle)

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Only Edexcel GCSE (9-1) students should answer Part (c).

(c) During the emission of a beta-plus particle.

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(d) During gamma radiation

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7. Among alpha, beta and gamma radiation, which type of radiation is the most ionising and which type is the least ionising?

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8. Among alpha, beta and gamma radiation, which type of radiation is the most penetrating and which type is the least penetrating?

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