

Nuclear decay equations 1

Education in Chemistry

March 2018

rsc.li/EiC218-thehuntison

This worksheet accompanies the above article 'The hunt is on'.

- (a) Complete the nuclear equations for a decay of the following isotopes by adding in the products

${}_{86}^{210}\text{Rn}$	→		+	
${}_{90}^{230}\text{Th}$	→		+	
${}_{4}^{10}\text{Be}$	→		+	
${}_{88}^{238}\text{Ra}$	→		+	
${}_{94}^{238}\text{Pu}$	→		+	

- (b) Complete the nuclear equations for B decay of the following isotopes by adding in the products

${}_{19}^{40}\text{K}$	→		+	
${}_{90}^{234}\text{Th}$	→		+	
${}_{4}^{8}\text{Be}$	→		+	
${}_{34}^{79}\text{Se}$	→		+	
${}_{36}^{85}\text{Kr}$	→		+	

- (c) Complete the nuclear equations by adding in the isotope that decays and the type of decay

Type of decay				
	→	${}_{39}^{125}\text{Y}$	+	${}_{-1}^0\text{e}$
	→	${}_{94}^{238}\text{Pu}$	+	${}_{2}^4\text{He}$
	→	${}_{81}^{205}\text{Tl}$	+	${}_{2}^4\text{He}$