Question Number	Answer	Mark
2(a)	Any **TWO** from	
	Do not point source towards the body **(1)**	
	Keep a safe distance from the source **(1)**	
	Use the source for as short a time as possible **(1)**	
	Handle with tongs **(1)**	**2**
	[Ignore answers relating to PPE, shielding and storage]	
2(b)(i)	**EITHER**	
	$\ln C = \ln C_0 - \mu x$ **(1)**	
	Compares with $y = c + mx$ where $-\mu$ is the gradient which is constant **(1)**	
	MP2 dependent on MP1	
	OR	
	$\ln C = -\mu x + \ln C_0$ **(1)**	
	Compares with $y = mx + c$ where $-\mu$ is the gradient which is constant **(1)**	**2**
	MP2 dependent on MP1	
2(b)(ii)	1. Measure thickness of x with a micrometer **(1)**	
	2. Record the count (rate) C over a long period of time **(1)**	
	3. Obtain count (rate) C for at least 5 different values of thickness x. **(1)**	
	4. Keep the distance between the source and detector constant **(1)**	
	Any **TWO** from:	
	5. Record thickness x in several places and calculate a mean **(1)**	
	6. Check and correct for zero error (on the micrometer) **(1)**	
	7. Record the background count (rate) **and** subtract from the count (rate) C **(1)**	**6**
	Total for question 2	**10**