

④ ${}_{46}^{106}\text{Pd} + {}_2^4\text{He} \rightarrow {}_1^1\text{H} + {}_{47}^{109}\text{Ag}$

UNITS

$\frac{t_{1/2}}{1} = \frac{0.693}{k}$

$E = mc^2$
 J → $\frac{\text{kg}}{\text{s}^2}$

$\% = \frac{\text{Part}}{\text{Whole}} \times 100$

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⑩ 4.14 cpm long DEEP 15.3 cpm living

$t_{1/2} = 5560 \text{ yrs}$ $\frac{k}{1} = \frac{0.693}{5560}$ $(t_{1/2})$

$\ln A_t = -kt + \ln A_0$

$\ln 4.14 = (-1.246 \times 10^{-4})t + \ln 15.3$

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(13) ${}_{92}^{235}\text{U} + {}_0^1\text{n} \rightarrow {}_{36}^{88}\text{Kr} + {}_{56}^{144}\text{Ba} + 4 {}_0^1\text{n}$

$$(235.04 + 1.01) - (87.91 + 143.91 + 4(1.01))$$

0.19 amu *Mass defect*
Missing Mass

| | | |
|----------------|----------------|----------|
| 193 MeV | 0.19 amu | = 176.89 |
| amu | amu | |

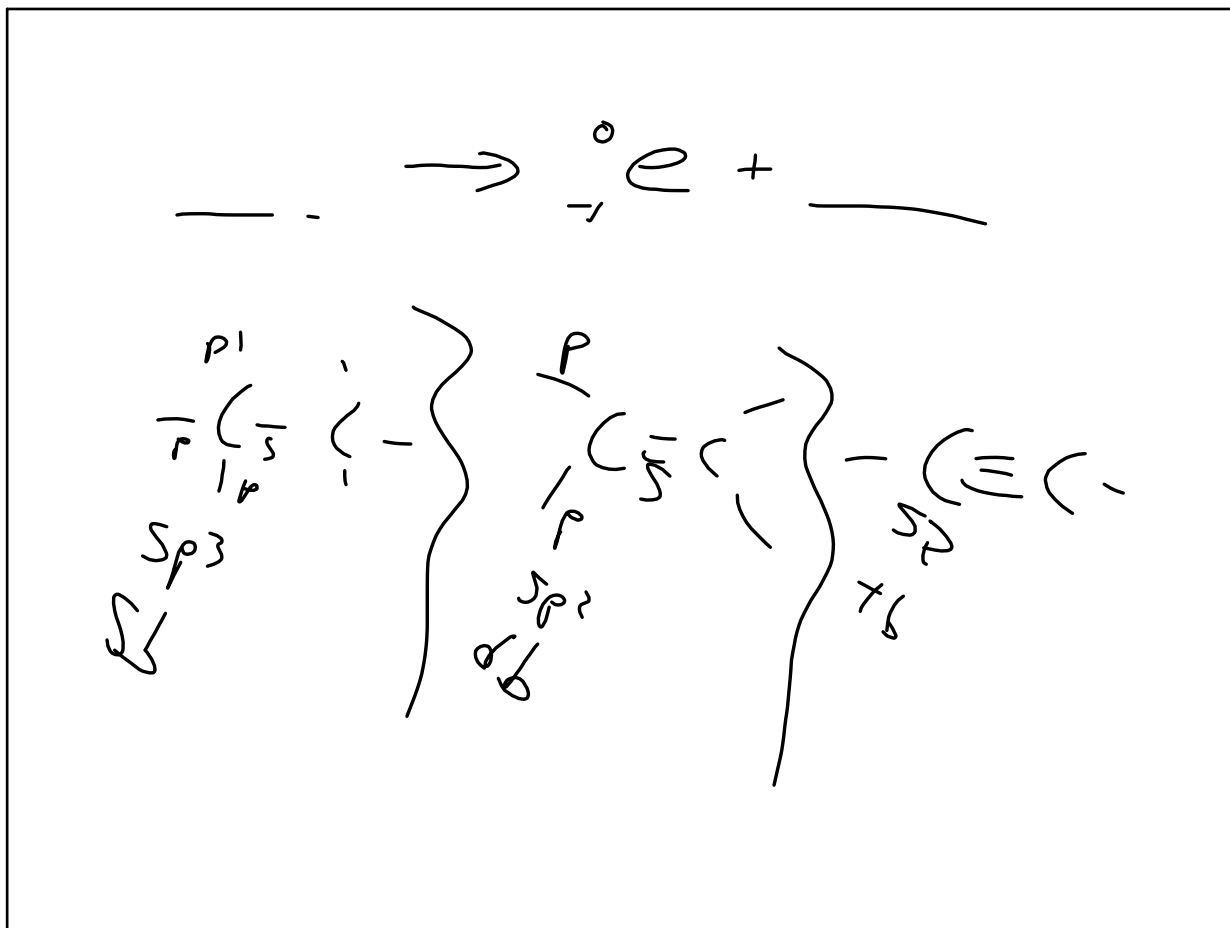
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(14)

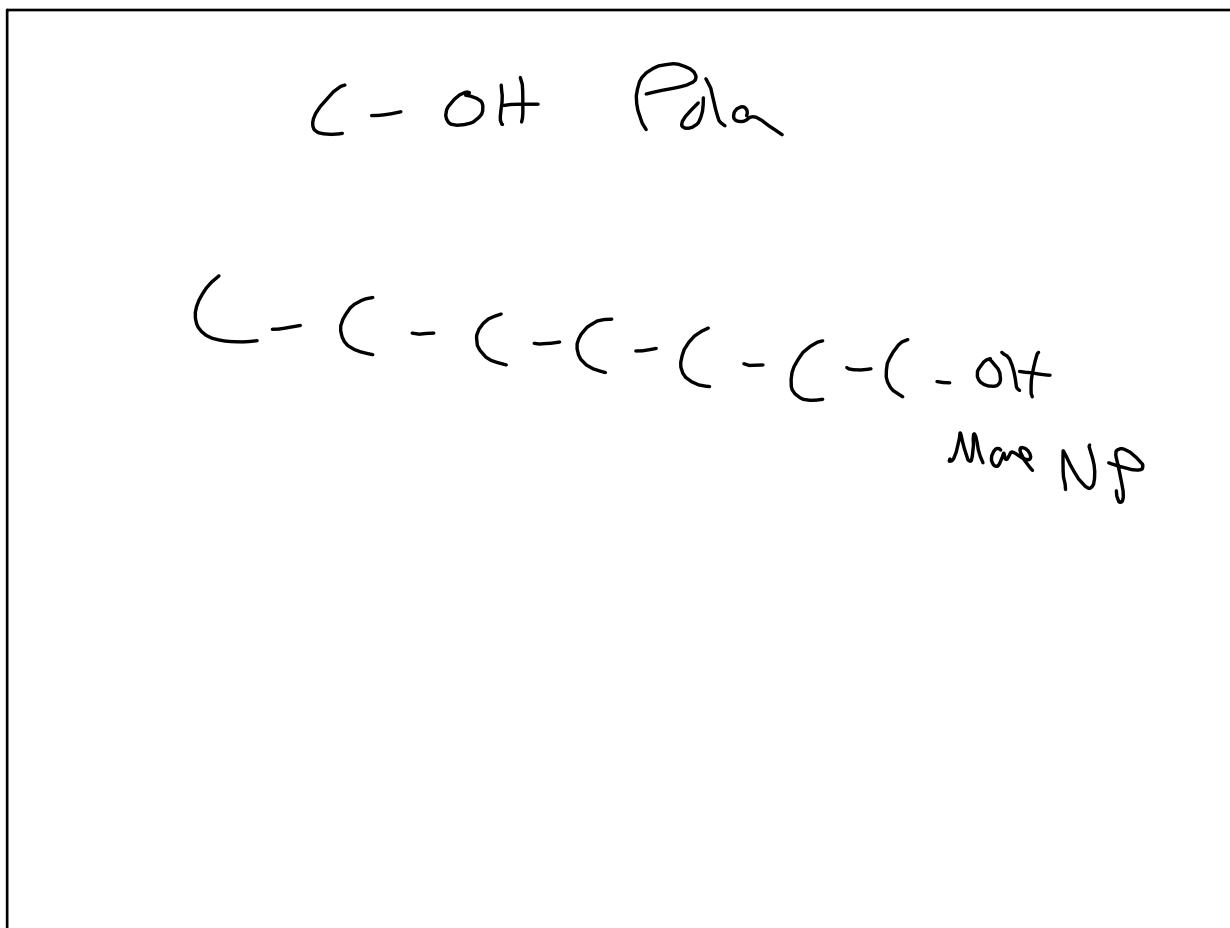
$$\frac{100}{100\%} \rightarrow \frac{50}{50\%} \rightarrow \frac{25}{25\%}$$

2 H₂O's
 2(5715) = 11430 yrs

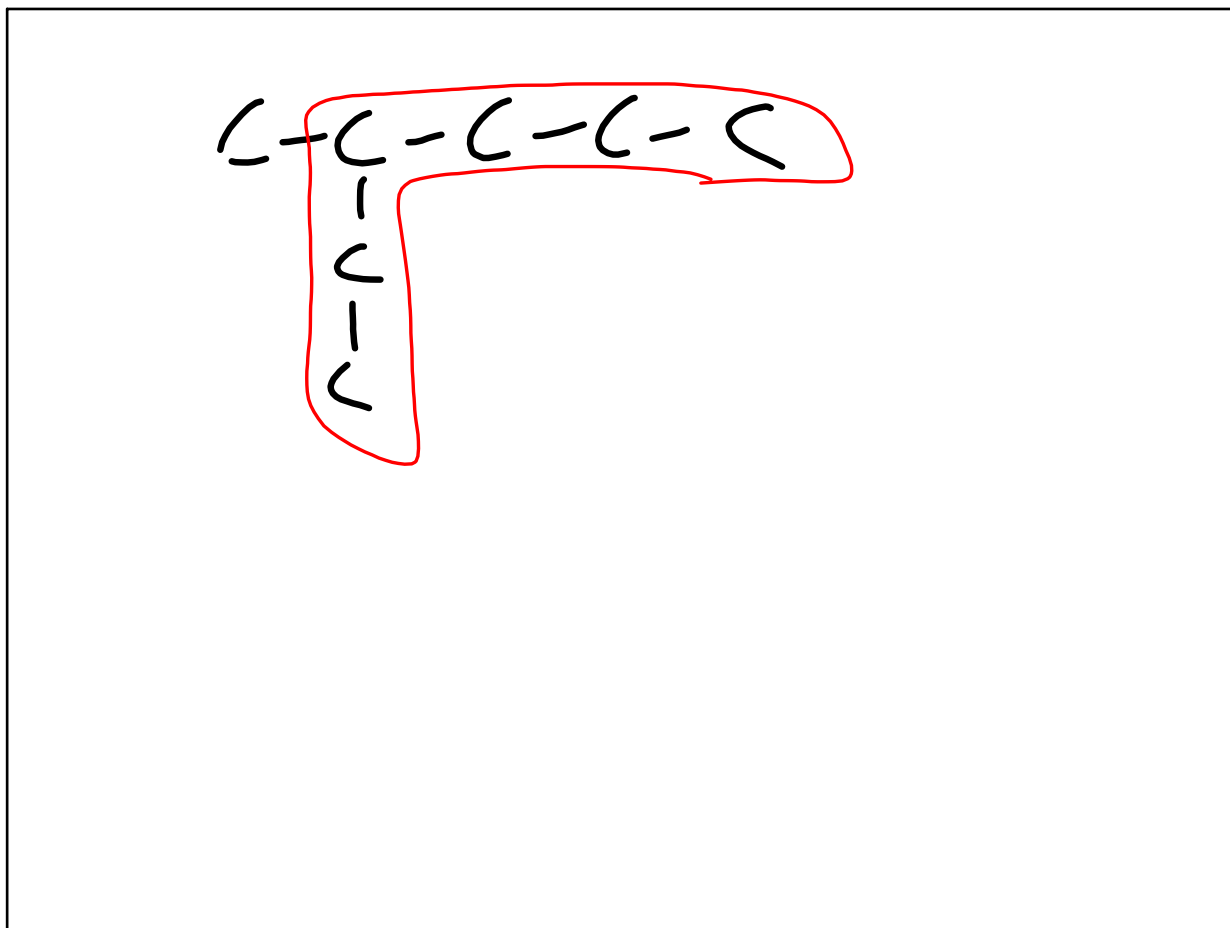
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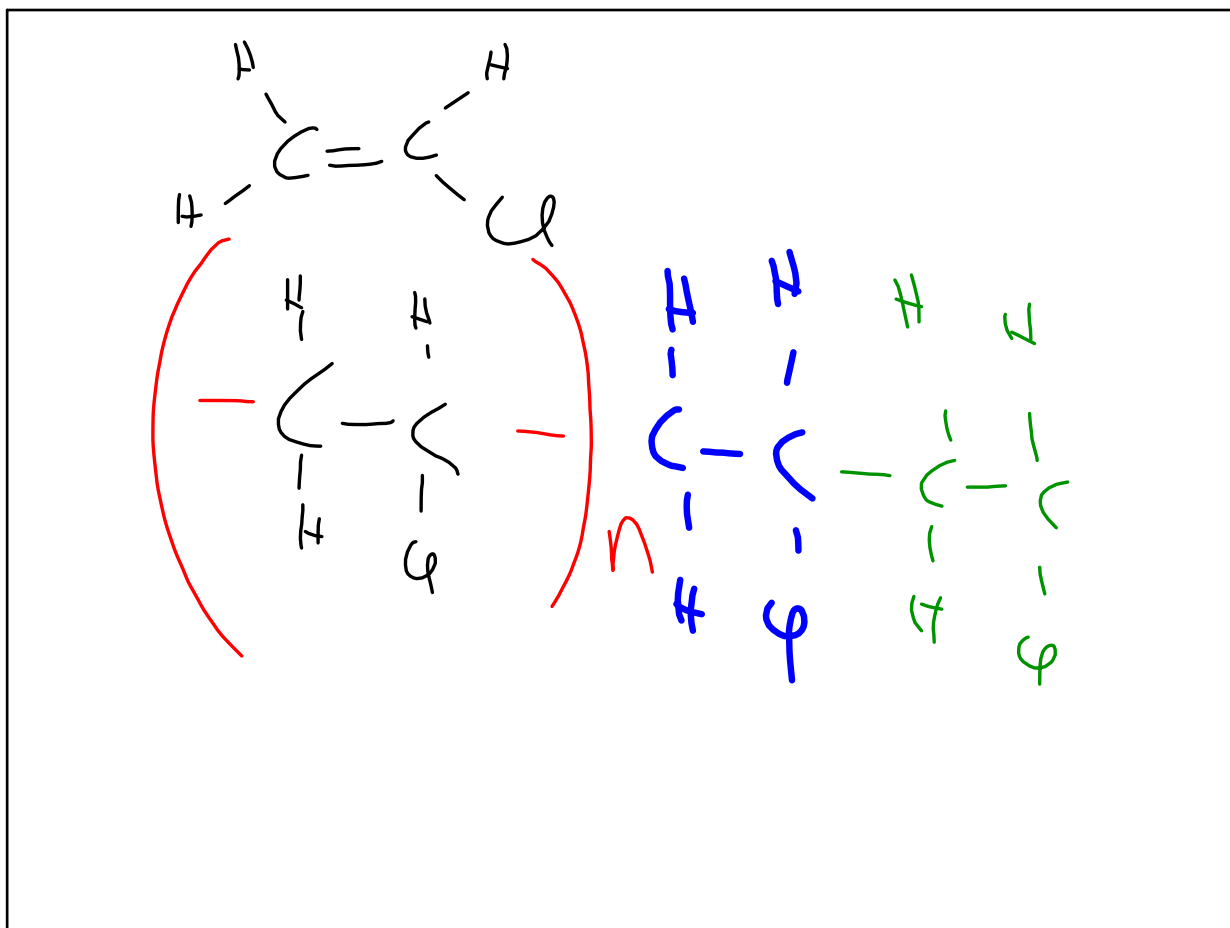
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Apr 24-9:10 AM



Apr 24-9:11 AM



Apr 24-9:12 AM