

Nuclear Chemistry



Name Class Date Which two substances are most commonly The main function of a coolant in a nuclear fission reactor is to used for shielding in a nuclear reactor? A slow down the speed of the neutrons A water and heavy water B absorb energy produced by the reaction B beryllium and graphite shield the wall of the reactor from c molten sodium and molten lithiun radiation damage D steel and high-density concrete D adjust the number of neutrons available for reaction 3 Which statement best describes what The half-life of 131 is 8.07 days. What happens in a fission reaction? fraction of a sample of 1311 remains after 24.21 days? 5 **PREVIEW** Please Sign In or Sign Up to download the printable version of this worksheet 7 original radioactive substance remains A proton → electron → alpha particle after 10 minutes? B proton → alpha particle → electron C electron → proton → alpha particle alpha particle → electron → proton C 9 Which reaction represents natural nuclear decay? is called $A H^+ + OH^- \rightarrow H_2O$ A ionization B KCIO₃ → K⁺ + CIO₃⁻ **B** crystallization **c** $^{235}_{92}U \rightarrow ^{4}_{2}He + ^{231}_{90}Th$ **C** combustion **D** transmutation $\mathbf{D}_{7}^{14}N + {}_{9}^{4}He \rightarrow {}_{8}^{17}O + {}_{1}^{1}H$



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Name_	CI	lass	Date
1	The main function of a coolant in a nuclear fission reactor is to A slow down the speed of the neutrons B absorbenergy produced by the reaction shield the walt of the reactor from radiation damage adjust the number of neutrons available for reaction	Which two substances are used for shielding in a nucleon shielding i	lear reactor?
3	Which statement best describes what happens in a fission reaction?	The half-life of 131 is 8.07 fraction of a sample of 131 24.21 days?	A STATE OF THE STA
5	PREV Please Sign In or Sign the printable version	ign Up to downloa	
7	A proton → electron → alpha particle B proton → alpha particle → electron C electron → proton → alpha particle D alpha particle → electron → proton	original radioactive substate after 10 minutes? A 1/2 B 1/4 C 1/8 D 1/16	
9	Which reaction represents natural nuclear decay? A H++OH ⁻ \rightarrow H ₂ O B KClO ₃ \rightarrow K++ ClO ₃ ⁻ C $^{235}_{92}$ U \rightarrow $^{4}_{2}$ He $+$ $^{231}_{90}$ Th D $^{14}_{7}$ N + $^{4}_{2}$ He \rightarrow $^{17}_{8}$ O + $^{1}_{1}$ H	The spontaneous decay is called A ionization B crystallization C combustion D transmutation	D D