

CHEMICAL REACTIONS and ENERGY

1. What is a catalyst? A catalyst is a substance that is added to a reaction to (speed slow) it (up down). During the reaction the catalyst itself (is is not) affected.
2. What is an exothermic reaction? An exothermic reaction is a reaction that (absorbs heat releases heat) and feels (hot cold).
3. What is an inhibitor? An inhibitor is a substance that is added to a reaction to (speed slow) it (up down).
4. What is an endothermic reaction? An endothermic reaction is a reaction that (absorbs heat releases heat) and feels (hot cold).

Decide if each of the following is a C – catalyst or I – inhibitor

5. ____ Brushing the edges of fruits with lemon juice can prevent the darkening effect that contact with the air causes.
6. ____ In the human body, proteins called enzymes help speed up chemical processes. The proteins are not affected during the chemical process.
7. ____ Food preservatives called BHT and BHA slow down the spoilage of certain foods, they are not affected.
8. ____ Nickel is used to increase the rate of methane formation from the addition of hydrogen and carbon monoxide. Nickel does not permanently change.
9. ____ The catalytic converter in a car contains platinum, which speeds up changing carbon monoxide, which is toxic, into carbon dioxide, the platinum is not permanently affected.

Decide if the following are EN – endothermic or EX – exothermic.

10. ____ When a lit match is placed in alcohol, the alcohol ignites producing heat and light.
11. ____ Energy in the form of electricity can be added to water to break apart the water into hydrogen gas and oxygen gas.
12. ____ A piece of coal placed in a furnace gives off heat and light before turning to ash.
13. ____ When ammonium chloride mixes with water, the solution feels cold.