Consider the reaction
\[ C + O_2 \rightarrow CO_2 \]

What is the magnitude of the change in the chemical energy for this reaction (per reaction)?
A. 8.24 eV  
B. 3.21 eV  
C. 11.45 eV  
D. 16.48 eV
Consider the reaction

\[ \text{C} + \text{O}_2 \rightarrow \text{CO}_2 \]

What is the **sign** of the change in the chemical energy for this reaction (per reaction)?

A. Positive  
B. Negative  
C. Cannot be determined
Consider the reaction
\[ \text{C} + \text{O}_2 \rightarrow \text{CO}_2 \]

If a mixture of carbon and oxygen gas undergoes the reaction at the right, what is the sign of the change in the thermal energy?

A. Positive
B. Negative
C. Cannot be determined

Does this make sense with your everyday experiences?
Consider the reaction
\[ 2\text{H}_2\text{O} \rightarrow 2\text{H}_2 + \text{O}_2 \]

What is the sign of the change in the chemical energy for this reaction (per reaction)?

A. Positive  
B. Negative  
C. Cannot be determined

Does this make sense with your everyday experiences?
Consider the reaction
\[ 2H_2O \rightarrow 2H_2 + O_2 \]

What is the magnitude of the change in the chemical energy for this reaction (per reaction)?