

RedOx Packet

- _____ 1. Consider the following reaction:
 $\text{Ba}(s) + \text{F}_2(g) \rightarrow \text{BaF}_2$.
Which of the following statements is *false*?
- A. The barium atom is gaining electrons; therefore, it is oxidized.
 - B. The fluorine atom is gaining electrons; therefore, it is oxidized.
 - C. The barium atom is losing electrons; therefore, it is oxidized.
 - D. The fluorine atom is losing electrons; therefore, it is reduced.
 - E. None of the above
- _____ 2. In the reaction $2\text{Ca}(s) + \text{O}_2(g) \rightarrow 2\text{CaO}(s)$, calcium is _____.
- A. synthesized
 - B. oxidized
 - C. reduced
 - D. electrolyzed
 - E. None of the above
- _____ 3. In the reaction $2\text{Cs}(s) + \text{Cl}_2(g) \rightarrow 2\text{CsCl}(s)$, the chlorine is _____.
- A. synthesized
 - B. electrolyzed
 - C. reduced
 - D. oxidized
 - E. None of the above
- _____ 4. The oxidation state of carbon in K_2CO_3 is
- A. -2
 - B. 0
 - C. +2
 - D. +6
 - E. +4
- _____ 5. The oxidation state of chlorine in LiCl is
- A. +1
 - B. 0
 - C. -2
 - D. -3
 - E. -1
- _____ 6. The oxidation state of nitrogen in NO_2 is
- A. -4
 - B. +4
 - C. -2
 - D. +2
 - E. 0

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- _____ 7. The oxidation state of sulfur in SO_4^{2-} is
- A. +8
 - B. +4
 - C. +6
 - D. +2
 - E. 0
- _____ 8. The oxidation state of manganese in MnO_4^- is
- A. 0
 - B. +7
 - C. +3
 - D. +4
 - E. +8
- _____ 9. The oxidation state of nitrogen in HNO_3 is
- A. +4
 - B. +1
 - C. 0
 - D. -2
 - E. +5
- _____ 10. The oxidation state of chlorine in ClO^- is
- A. -2
 - B. -1
 - C. 0
 - D. +1
 - E. +2
- _____ 11. The oxidation state of Rb in any compound is
- A. +2
 - B. 0
 - C. -1
 - D. +1
 - E. -2
- _____ 12. The oxidation state of oxygen in O_2 is
- A. -2
 - B. -1
 - C. -4
 - D. 0
 - E. +4
- _____ 13. In which of the following compounds does nitrogen have the most positive oxidation state?
- A. NaNO_2
 - B. NH_4Cl
 - C. NO_2
 - D. N_2O
 - E. HNO_3