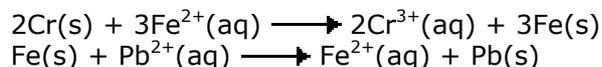




### Exercise 8.31 – Relative reactivity

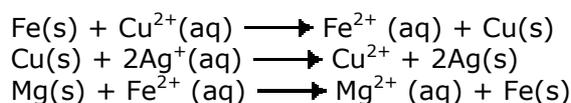
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**Q831-06** Which is the strongest reducing agent according to the spontaneous reactions below?



- A. Cr(s)
  - B. Cr<sup>3+</sup>(aq)
  - C. Pb<sup>2+</sup>(aq)
  - D. Pb(s)
- 

**Q831-07** Use these equations which refer to aqueous solutions to answer the questions which follow:

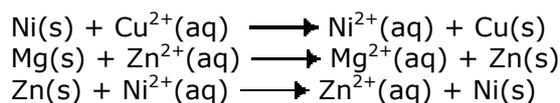


- a) List the four metals in order of decreasing reactivity. [1]
  - b) State and explain which is the strongest reducing agent in the examples above. [2]
  - c) State and explain which is the strongest oxidising agent in the examples above. [2]
- 

**Q831-08** For each of the following reactions in aqueous solution state one observation that would be made and deduce the equation

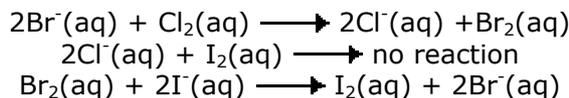
- a) The reaction between chlorine and sodium iodide. [2]
  - b) The reaction between silver ions and chloride ions. [2]
  - c) Deduce whether or not each of the above reactions is a redox reaction giving a reason in each case. [4]
- 

**Q831-09** Consider the following reactions:



- a) List the four metals in order of decreasing reactivity.
  - b) State and explain which species is the strongest reducing agent in these reactions.
  - c) State and explain which species is the strongest oxidising agent in these reactions.
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**Q831-10** Given the following information about reactions between halogens and halide ions:



Arrange the halide ions in order of increasing reactivity.

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