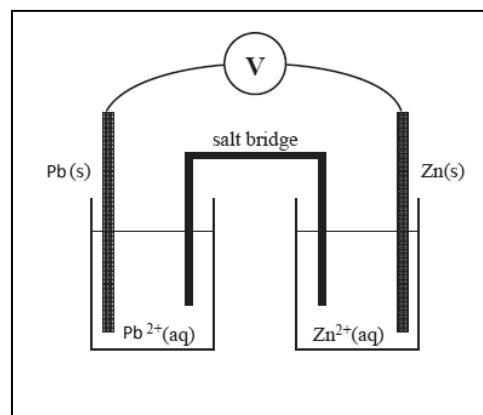


Lesson 11 –Revision of galvanic cells

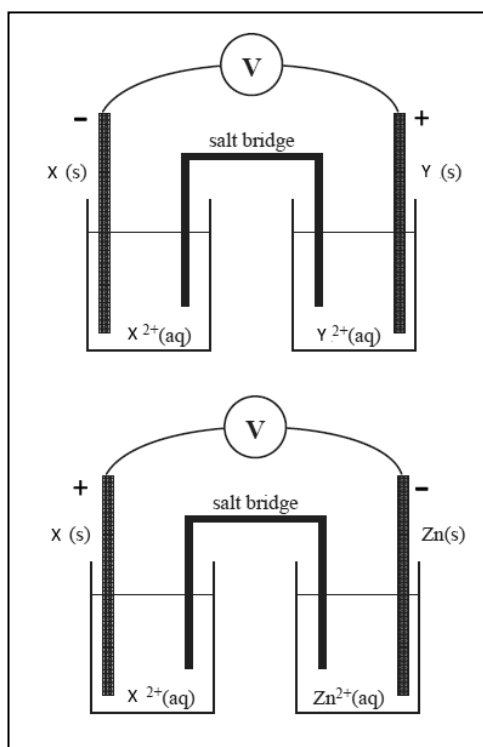
1) Consider the galvanic cell shown on the right operating at standard conditions.

- a) Identify the :
  - oxidant
  - reductant
- b) Calculate the cell voltage.
- c) On the diagram, label the :
  - Anode
  - Cathode



2) Consider the two galvanic cells shown on the right operating at standard conditions.

- a) Which is the weakest oxidant out of the following species? Explain your answer with reference to the cells.
  - i) X(s), X<sup>2+</sup>(aq), Y(s), Y<sup>2+</sup>(aq), Zn(s), Zn<sup>2+</sup>(aq)



- b) Which is the weakest reductant out of the following species? Explain your answer with reference to the cells.
  - i) X(s), X<sup>2+</sup>(aq), Y(s), Y<sup>2+</sup>(aq), Zn(s), Zn<sup>2+</sup>(aq)

d) Consider the galvanic cell shown on the right.

- i. Identify the:
  - anode
  - cathode
  - direction of electron flow
  - direction of cation flow.
- ii. The salt bridge is initially composed of KNO<sub>3</sub>(aq), however, it is soon changed to Fe<sub>3</sub>(NO<sub>3</sub>)<sub>3</sub>(aq). Explain what changes, if any, occur in the galvanic cell and give the cell voltage.
- iii. Identify "Z".

