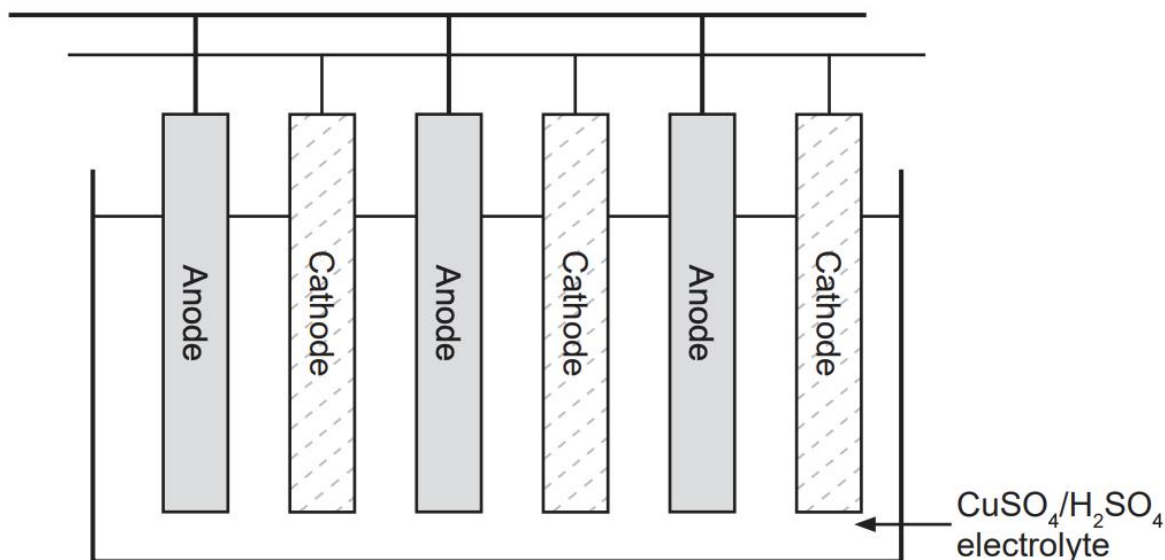


20. Impure copper must be purified before it is used in applications where very high electrical conductivity is required. The purification of copper, which is also known as electrorefining, can be performed in an electrochemical cell similar to the one shown below.



Which statement regarding this electrochemical cell is correct?

- (a) This cell requires the application of an external electrical potential difference for it to function.
- (b) During operation, the electrolyte becomes less blue because the concentration of  $\text{Cu}^{2+}$  ions in the electrolyte decreases.
- (c) This cell will not work because it does not have a salt bridge.
- (d) The impure copper is cast as cathodes.