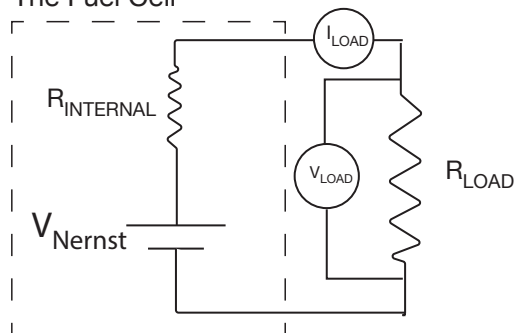


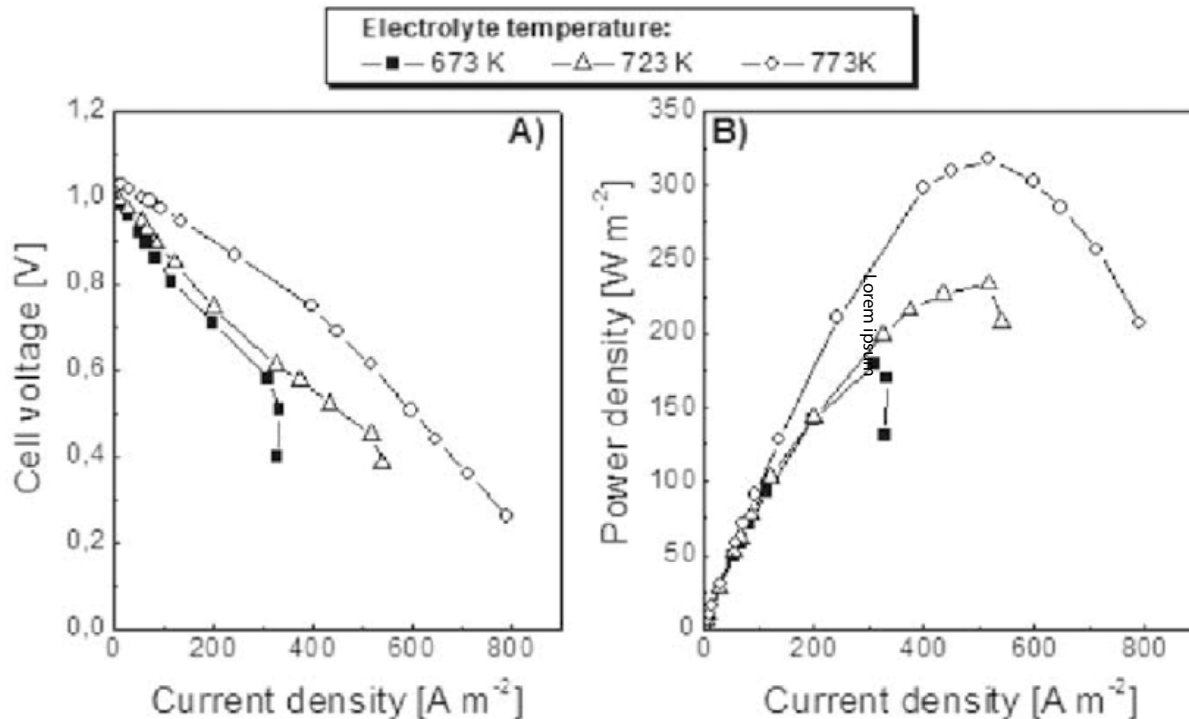
## 0602B: Problems Related to Power Density of SOFC

The equivalent circuit for a fuel cell with an electrical load is shown below (it neglects interface resistance)

The Fuel Cell



The response of a fuel cell (cell voltage and power) are shown below



(i) Point to the Nernst potential in the figure on the left.

(ii) Justify the nearly straight line with a negative slope for the figure on the left. What is the significance of the slope of these lines.

(v) What is the significance of the maximum in the curve on the right. How can the position of the maximum be analyzed to yield the internal resistance in the equivalent circuit.

(vi) Compare the results for the internal resistance from the two sets of data.