Thermoelectricity: From Atoms to Systems

L3.4 Quiz

Answers

1) What is the typical method used for thin film in-plane electrical conductivity measurements?
   a. $\omega$ method
   b. Thermoreflectance imaging
   c. Van der Pauw method
   d. Substrate removal and suspended film measurement
   e. Hall effect measurement

2) Which is the typical method used for thin film cross-plane thermal conductivity measurements?
   a. $\omega$ method
   b. Thermoreflectance imaging
   c. Van der Pauw method
   d. Substrate removal and suspended film measurement
   e. Hall effect measurement

3) What is the requirement for the transient ZT characterization of thin thermoelectric films?
   a. Uniform temperature distribution at the contact electrode to the sample
   b. Low contact resistance
   c. High speed measurement of thermoelectric voltages
   d. Adiabatic condition on the sample surface to be measured
   e. All of the above