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STRUCTURAL AND ELECTRICAL CONDUCTIVITY STUDIES OF POLYCRYSTALLINE COPPER SELENIDE AT LOW TEMPERATURE

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ABSTRACT
This paper reports the structural and electrical conductivity characterization of the copper selenide (CuSe) metal chalcogenide semiconductor in bulk form. In situ X-ray powder diffraction analysis of CuSe at low temperature (100 – 300 K) is studied to support the electrical conductivity analysis. The electrical conductivity of the polycrystalline CuSe was measured and analyzed at low temperature (100 to 286 K) using 4 point probe technique. The electrical conductivity values obtained were in the range of 1.69 x 103 to 2.58 x 103 S/cm.

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