

Effect of synthesis temperature on the transport properties of copper ferrites

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Abstract

Copper ferrites were prepared from equimolar oxide mixtures at different temperatures, and their electrical conductivity and thermoelectric power were measured. The transport properties of the ferrites were found to vary systematically with the synthesis temperature. A model for charge transport in copper ferrite spinels was proposed. The conductivity and thermoelectric power data, together with earlier Mössbauer results, were used to assess the cation distribution in the ferrites.

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