The Frequency Dependence of the Conductivity and Dielectric Relaxation of $[(CH_2)_3(NH_3)_2]Cu(II)Cl_4$

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The structural, dielectric and conductive properties of $[(CH_2)_3(NH_3)_2]Cu(II)Cl_4$ have been studied. The material shows an order-disorder transition at $T_1 = (333 \pm 2)$ K and a ferroelectric phase transitions at $T_2 = (434 \pm 3)$ K. Results of differential thermal analysis, infrared spectroscopy, X-ray diffraction, AC conductivity and permittivity measurements are reported and discussed. The conductivity results are interpreted in terms of barrier hopping at low and intermediate temperatures, and band-type conduction at high temperatures. – PACS: 81.05.-t, 77.22.-d

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