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Electrical Transport Properties of the Purple Bronze $\mathbf{Li_{0.9}Mo_6O_{17}}$[1] MARIO S. DA LUZ, Escola de Engenharia de Lorena - USP, JAMY MORENO, Richard Stockton State College, C. A. M. DOS SANTOS, Montana State University and Escola de Engenharia de Lorena - USP, B. D. WHITE, J. A. SOUZA, J. J. NEUMEIER, Montana State University — The crossover from metallic to semiconductor-like behavior in $Li_{0.9}Mo_6O_{17}$ has been the subject of intense discussion. An important issue is whether or not it is a Luttinger Liquid. This idea has received substantial support because of the quasi-one dimensionality observed in electrical resistivity measurements performed 20 years ago. In this work the transport properties of $Li_{0.9}Mo_6O_{17}$ single crystals are revisited. Crystals were characterized by x-ray powder diffractometry and the crystallographic orientations were determined by transmitted Laue diffraction. Electrical resistance as a function of temperature, $R(T)$, performed using standard four probe and Montgomery methods are compared. The magnetic field dependence of the minimum in the $R(T)$ curves and the temperature dependence of the insulating-like regime are also presented.

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