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I057/I257

AUTHOR: (8) Stolz, H.

TITLE: (6) The quantum theory of the conductivity tensor of the plasma model of a metal in an external magnetic field

(15) TRANS. from
PERIODICAL: Physica status solidi v.2, no.8, 1962, pp. 1029-1042

TEXT: The plasma model of the electrons in a metal in an external homogeneous magnetic field is used to calculate the conductivity tensor, taking into account both spatial and temporal dispersion. The method used is a quantum-mechanical version of that developed previously by Cohen, M.J. and W.A. Harrison. It is pointed out that since the electron relaxation processes do not in general affect the electron concentration, they cannot be included in the relaxation-free formalism by simply adding to the real frequency the imaginary

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The quantum theory of the conductivity tensor...

term i/τ, but must be included in the equation of motion for the density matrix.

ASSOCIATION: Physikalisch-Technisches Institut der Deutschen Akademie der Wissenschaften zu Berlin

SUBMITTED: May 25, 1962

[Abstracter's note: English abstract in article found to be reliable.]

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