

Abstract Submitted
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Physics & Astronomy
Classification Scheme
72.15 Cz, 72.15 Gd,
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Suggested Title of Session
in which paper should
be placed: Thin Films
Localization

Transport Studies of Thin Palladium Films*
W.C. MCGINNIS, M.J. BURNS, G. DEUTSCHER, G. GRÜNER
and P.M. CHAIKIN, Univ. of CA. Los Angeles--Room
temperature evaporation of pure palladium can produce
very thin uniform films as evidenced by electron-
interference effects seen in proximity effect tun-
neling. For thicknesses less than $\sim 40\text{\AA}$ the effects
of electron localization become increasingly important
with exponential temperature dependence at high resis-
tance per square and logarithmic temperature dependence
at low resistance per square, the crossover occurring
at $\sim 20\text{ \AA}$. Measurements of temperature and electric
field dependent conductivity, frequency dependent
conductivity, magnetoresistance and hall effect and
thermoelectric power will be presented.

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Signature of APS Member

- Prefer Poster Session
 Prefer Standard Session
 No Preference

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