

Abstract Submitted
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Electric Field Effects on Quasi 1D Organic Conductor
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State University — We present a study of the behavior of the 1-D organic conductor,
(TMTSF)₂PF₆, under electric field. We observed a dependence of the conductiv-
ity, critical temperature (at which the spin density wave effect occurs, T_{SDW}), and
magnetoresistance with the applied electric field. The conductance of the sample in
the low temperature range (less than $T_{SDW} = 12$ K) is observed to be increasing
with the applied electric field. The T_{SDW} appears to decrease with increasing elec-
tric field. The magnetoresistance behavior changes from positive to negative when
higher electric field is applied. All these three dependences are ambipolar.

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