

**Generalized Susceptibility of the quasi-one-dimensional organic conductors
with the triclinic lattice symmetry**

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We have shown the effect of the Fermi surface shape on the field-induced spin density wave (FISDW) states in the quasi-one-dimensional system such as (TMTSF)₂X (X= ClO₄ and PF₆)[1-3]. We have made clear the relation between the FISDW state characterized by integer N and the parameters [the higher harmonics (t'_b, t_3, t_4) of the transfer integrals and the periodic potential (V) due to the anion ordering]. In this study, we study the susceptibility in more realistic model with the triclinic lattice symmetry to investigate how the lattice symmetry affects the results. We expect that the unexplained periodic oscillation with sign reversal of the resistivity as a function of the magnetic field above 26 T in (TMTSF)₂ClO₄[4] is explained.

[1] K. Kishigi and Y. Hasegawa, Phys. Rev. **B75**, 245107 (2007).

[2] Y. Hasegawa and K. Kishigi, Phys. Rev. **B78**, 045117 (2008).

[3] K. Kishigi and Y. Hasegawa, unpublished.

[4] S. Uji, S. Yasuzuka, T. Konoike, K. Enomoto, J. Yamada, E. S. Choi, D. Graf and J. S. Brooks, Phys. Rev. Lett. **94**, 077206 (2005).