

*Theme :*

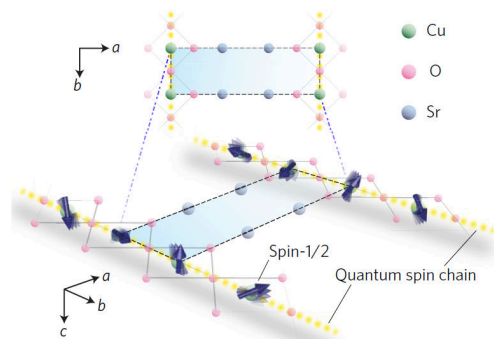
Quantum rectification effects in low-symmetry systems

*Purpose :*

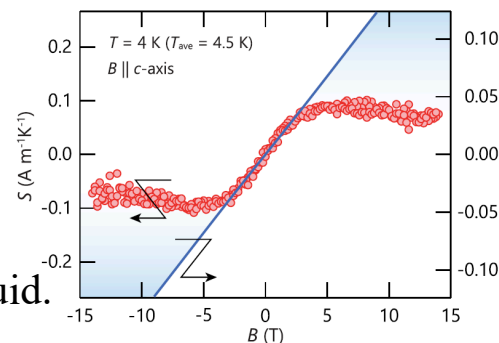
Demonstration and elucidation of nontrivial rectification effects which cannot be achieved within the framework of classical physics.

*Achievement:*

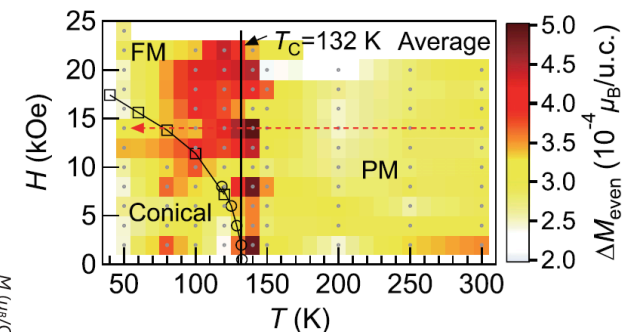
1. Discovery of spinon spin currents in a one-dimensional quantum spin liquid
2. Demonstration of magnon-pair correlation by means of spin-dependent transport measurement
3. Direct demonstration of charge-to-spin conversion in a chiral metal



Model material of a 1D quantum spin liquid.



Evidence for magnon-pair correlation.



Color contour map of current-induced magnetization.