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ワイル半金属テルル単結晶の電子状態の解明

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Band splitting and Weyl nodes in trigonal tellurium studied by angle-resolved photoemission spectroscopy and density functional theory

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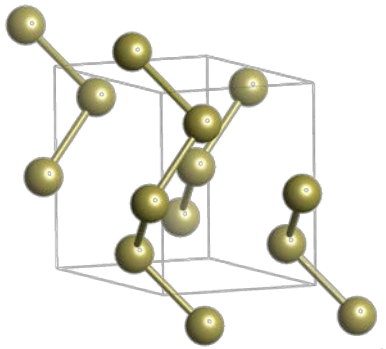

Figure1. Crystal structure of tellurium showing the spiral chain

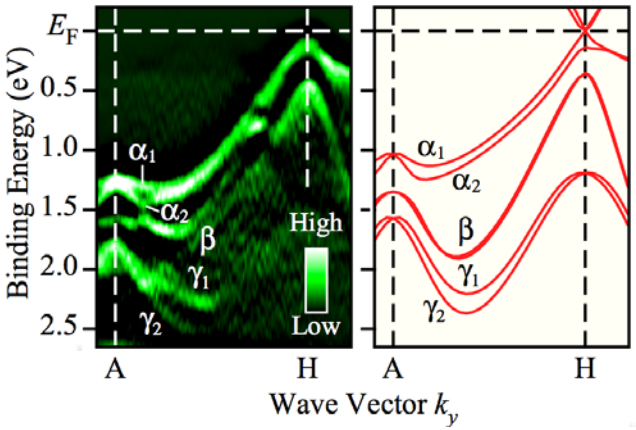

Figure2. Electronic bandstructure obtained by ARPES experiment (left) and DFT calculation (right)

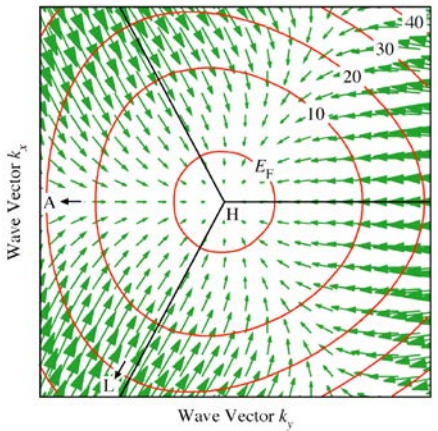

Figure3. Calculated spin texture in ***k***-space related to Weyl point (magnetic monopole)

波数空間に磁気単極子であるワイル点をもつことが予想されているテルル単結晶の電子状態を角度分解光電子分光および第一原理電子状態計算を用いて明らかにした。
We performed ARPES measurement and DFT calculation to clarify the electronic bandstructre in trigonal tellurium, which has Weyl points in the momentum space.