

The origin of the parity-violation splitting in Fermi surfaces

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The splitting of electronic states in non-centrosymmetric compounds has been widely studied in the fields of basic science and applications. However, the magnitudes of the splitting have not yet quantitatively discussed. In this talk, what determines splitting magnitudes are discussed, based on the Fermi surface study for various compounds. It should be noticed that effect of the relativistic mass correction is important in the splitting in Bi compounds. Our new project “J-Physics: Physics of conductive multipole systems” [Grant - in - Aid for Scientific Research on Innovative Areas (Research in a proposed research area)] will be also briefly introduced.

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3. “Chiral-Structure-Driven Split Fermi Surface Properties in TaSi₂, NbSi₂, and VSi₂”, Y. Onuki, A. Nakamura, T. Uejo, A. Teruya, M. Hedo, T. Nakama, F.i Honda, H. Harima, *J. Phys. Soc. Jpn.* 83 (2014) 061018/1-6.
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5. “Single-Crystal Growth and de Haas-van Alphen Effect in Yb₄Sb₃”, M. Shirakawa, M. Ona, H. Aoki, A. Ochiai and H. Harima, *Acta Physica Polonica B* 34 (2003) 1157-1160.
6. <http://jphysics.jp/> (in japanese)