Point contact spectroscopy measurements on the filled skutterudite compound $LaRu_4As_{12}$

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Recently it was proposed that the filled skutterudite compound $LaRu_4As_{12}$ is another example of a multi-band superconductor [1]. Here we report point-contact (PC) spectroscopy measurements on the single crystal of $LaRu_4As_{12}$ with the critical temperature $T_c = 10.4$ K. The PC spectra were measured at various temperatures down to 1.5 K. From evolution of the point-contact spectra, the temperature dependence of the superconducting energy gap and the strength of the superconducting coupling were determined. Complementary experiments by *ac*-calorimetry were performed on the same $LaRu_4As_{12}$ crystal. Specific heat measurements with both temperature and magnetic field sweeps will be also discussed.

References:

[1] L. Bochenek, R. Wawryk, Z. Henkie, and T. Cichorek, PRB **86** (2012) 060511(R)