

JOSEPHSON JUNCTIONS WITH TUNGSTEN NANORODS AS WEAK LINKS

We present a first step towards creation of a heterostructure with two superconducting leads and tungsten nanorods connecting them. We show that such a trilayer exhibits Josephson properties and thus realizes a superconducting junction with a spin-orbit active weak link. Specific features revealed in current-voltage curves of the junctions under microwave irradiation are caused by a resonant interaction of the Josephson generation with standing waves in the long junctions (the so-called zero-field steps).

Primary authors: SHATERNIK, Volodymyr (G.V.Kurdyumov Institute for Metal Physics of NAS of Ukraine); SHAPOVALOV, Andrii (V. Bakul Institute for Superhard Materials); Dr GRYB, Alexander (senior scientific worker); KHANENKO, Pavlo (student)

Presenter: SHAPOVALOV, Andrii (V. Bakul Institute for Superhard Materials)

Track Classification: Surface Physics, Nano- and Microelectronics