

COMPUTER METHODS OF RECOGNITION OF THE ELECTRONIC STRUCTURE OF IRON BASE SUPERCONDUCTORS

The developed algorithm for processing ARPES spectra by the method of curvature, the presence of abnormal dependence on the temperature (red-blue offset) at the M point of the Brillouin zone is confirmed. That explains the blockage of the jump between the closest neighbors and is consistent with the Fermi Landau Land Model. The dependence obtained in the center of the Brillouin zone contradicts the predictions of a “red-blue shift”, which explains models of the Pomeranchuk instability due to electronic correlations. In the corner of the Brillouin zone, a more complex dependence is found which lies in the opposite shift of the upper and lower zones. It is believed that this is a consequence of a nematic transition, but the analysis of spectra with different polarizations does not confirm the known models of the evolution of the structure in the nematic state.

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