

31. Title: Looking at the superconducting gap of iron pnictides

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Abstract: THz and infrared spectroscopies are widely utilized to investigate the electrodynamic properties of the novel iron-based superconductors in the normal and superconducting states. Besides electronic excitations and correlations, electron-phonon coupling and the influence of magnetism, the experiments yield important information on low-lying excitations and help to clarify the number and symmetry of superconducting gaps. While the experimental data of different groups converge, the interpretation is still under debate. Here we review the status of optical investigations on the superconducting state for the 122 and 11 family of iron pnictides.