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Temperature and doping dependent FT-STS studies of Bi-2201 WILLIAM WISE, KAMALESH CHATTERJEE, MICHAEL BOYER, YAYU WANG, Massachusetts Institute of Technology, TAKESHI KONDO, Ames Laboratory, TSUNEHIRO TAKEUCHI, HIROSHI IKUTA, Nagoya University, ERIC HUDSON, Massachusetts Institute of Technology — We present Fourier transform scanning tunneling spectroscopy (FT-STS) results in superconducting Bi-2201. The data presented are drawn from samples at a variety of dopings, and from experiments both below and above the superconducting transition temperature T_c . A number of unexpected trends are revealed by this systematic study. We interpret the results in light of several theories and make comparisons to results from other crystal systems.

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