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## **Signatures of the Superconducting Mechanism in the Far-Infrared**

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Tunneling spectroscopy probably remains the most powerful tool to determine the mechanism of a superconductor. By using the McMillan-Rowell inversion procedure for quasiparticle tunneling data in conventional superconductors one is able to learn a great deal about the electron-phonon mechanism. A similar procedure exists with optical data; we will review this work and use far-infrared measurements on the superconducting Fullerenes as a case study. Finally we will illustrate a scenario where recent measurements of the sum rule violation may also be telling us about mechanism.

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