Abstract

Three experimental methods are used to study the dissipation in Bi-2212 single crystals (direct measurements of the electrical resistivity, AC susceptibility and DC magnetic relaxation measurements). This allows the resistivity to be registered over 14 orders of magnitude. There is no gap in this wide range of measurements and some overlapping of the ranges obtained by different methods have been obtained. A crossover in the dissipation has been evidenced by this technique due to the extended range of measurement. In the *H*- *T* phase diagram, this crossover line does not correspond to the irreversibility line and separates a phase at low temperatures in which the relaxation is slow from a phase at high temperatures in which the relaxation is fast. This transition is limited at high fields by a critical point and at low fields by the so called "fish-tail".